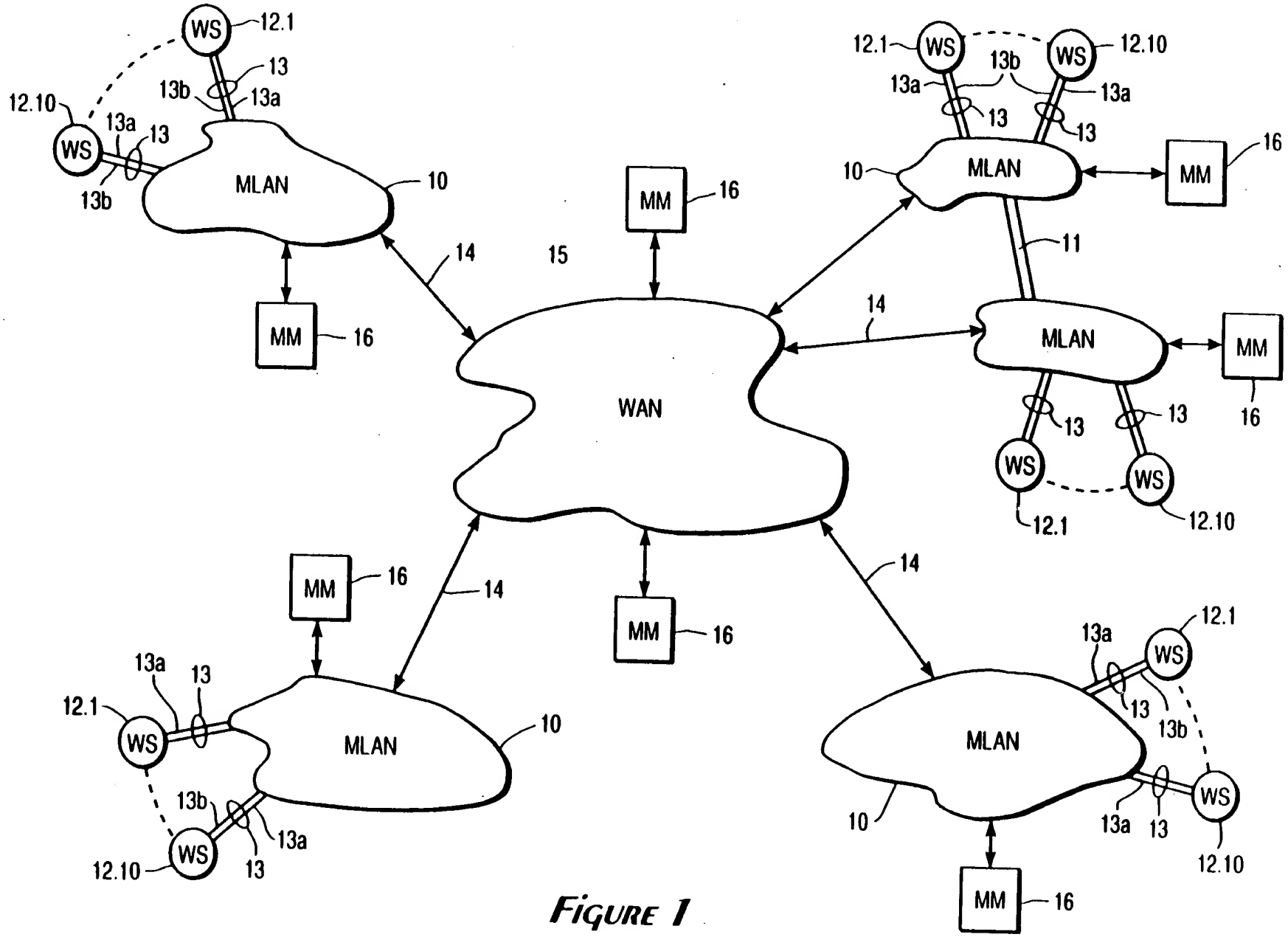


FIGURE 1

5802294

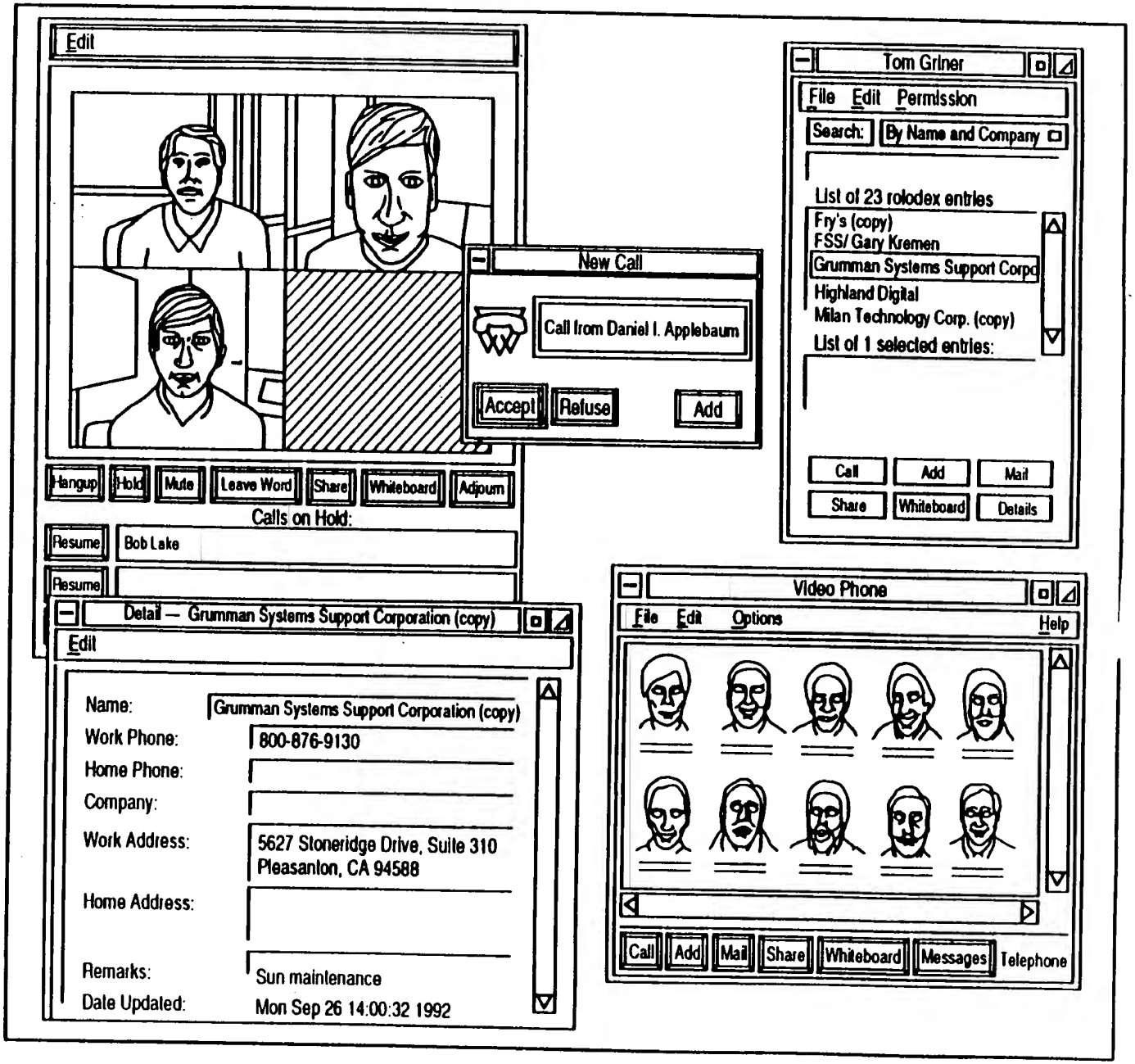

Edit
Hangup
Hold
Mute
Leave Word
Share
Whiteboard
Adjourn
Calls on Hold:
Resume
Bob Lake
Resume
New Call
Call from Daniel I. Applebaum
Accept
Refuse
Add
Tom Griner
File Edit Permission
Search:
By Name and Company
List of 23 rolodex entries
Fry's (copy)
FSS/ Gary Kremen
Grumman Systems Support Corpo
Highland Digital
Milan Technology Corp. (copy)
List of 1 selected entries:
Call
Add
Mail
Share
Whiteboard
Details
Detail — Grumman Systems Support Corporation (copy)
Edit
Name:
Grumman Systems Support Corporation (copy)
Work Phone:
800-876-9130
Home Phone:
Company:
Work Address:
5627 Stoneridge Drive, Suite 310
Pleasanton, CA 94588
Home Address:
Remarks:
Sun maintenance
Date Updated:
Mon Sep 26 14:00:32 1992
Video Phone
File Edit Options Help
Call
Add
Mail
Share
Whiteboard
Messages
Telephone

FIGURE 2A

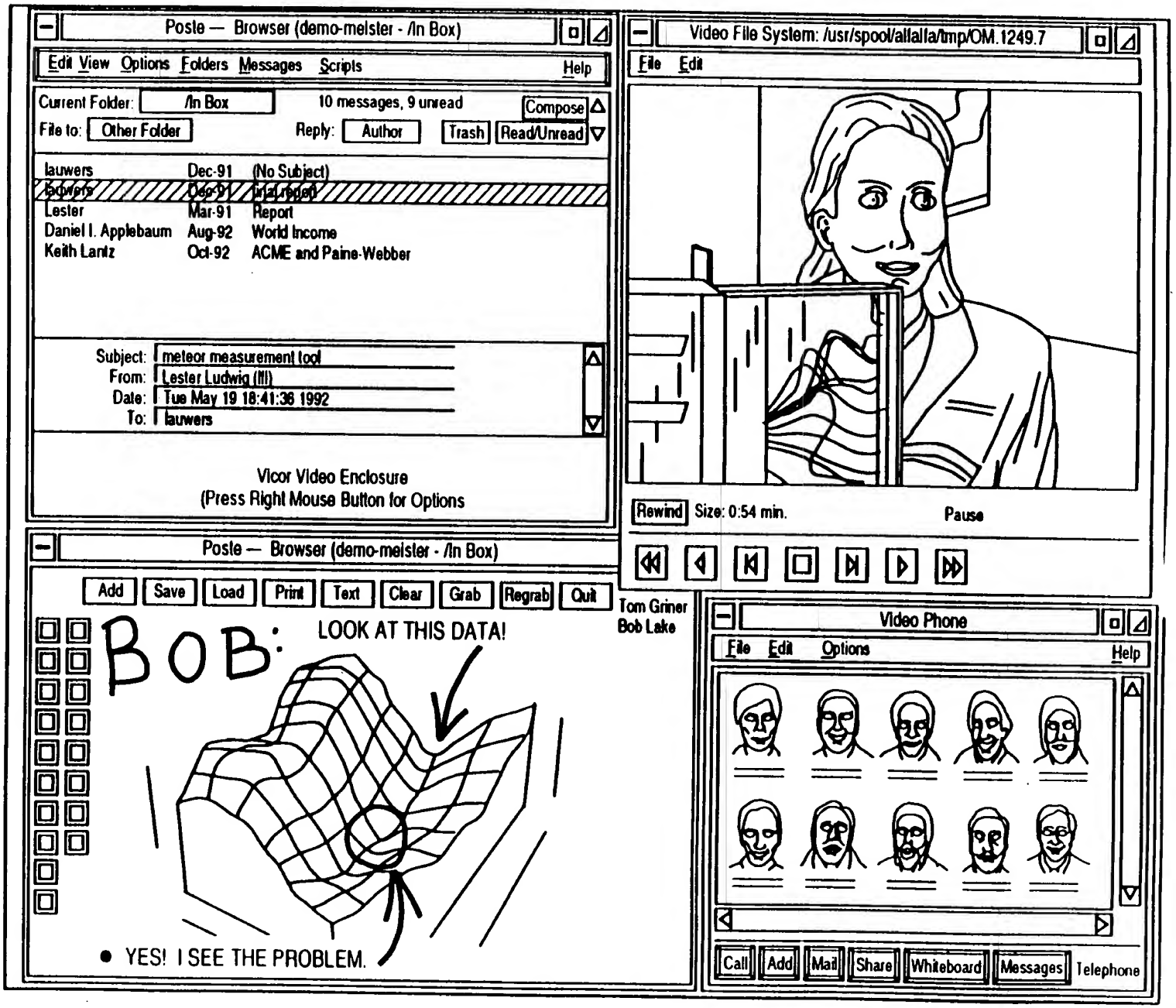

Poste — Browser (demo-meister - /In Box)
Edit View Options Folders Messages Scripts Help
Current Folder: /In Box
10 messages, 9 unread
Compose
File to: Other Folder
Reply: Author
Trash
Read/Unread
lauwers Dec-91 (No Subject)
lauwers Dec-91 (No Subject)
Lester Mar-91 Report
Daniel I. Applebaum Aug-92 World Income
Keith Lantz Oct-92 ACME and Paine-Webber
Subject: meteor measurement tool
From: Lester Ludwig (fll)
Date: Tue May 19 18:41:36 1992
To: lauwers
Vicor Video Enclosure
(Press Right Mouse Button for Options
Video File System: /usr/spool/alfalfa/tmp/OM.1249.7
File Edit
Rewind
Size: 0:54 min.
Pause
Poste — Browser (demo-meister - /In Box)
Add
Save
Load
Print
Text
Clear
Grab
Regrab
Quit
Tom Griner
Bob Lake
BOB:
LOOK AT THIS DATA!
YES! I SEE THE PROBLEM.
Video Phone
File Edit Options Help
Call
Add
Mail
Share
Whiteboard
Messages
Telephone

FIGURE 2B

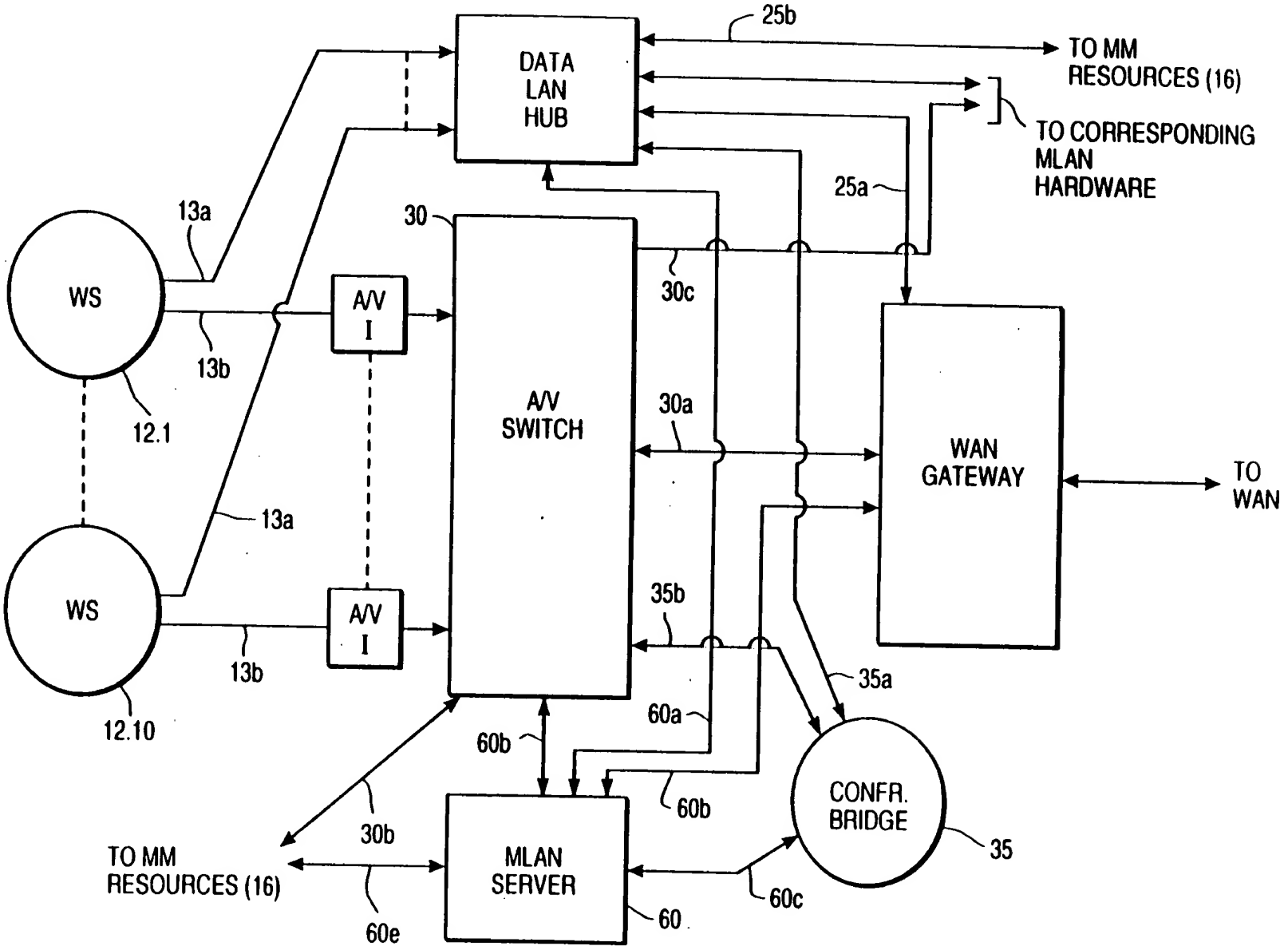

DATA
LAN
HUB
25b
TO MM
RESOURCES (16)
TO CORRESPONDING
MLAN
HARDWARE
25a
13a
30
WS
A/V
I
30c
13b
A/V
SWITCH
30a
WAN
GATEWAY
TO
WAN
12.1
13a
WS
A/V
I
35b
13b
35a
12.10
60a
60b
CONFR.
BRIDGE
60b
30b
TO MM
RESOURCES (16)
MLAN
SERVER
35
60c
60e
60

FIGURE 3

DRAFTSMAN

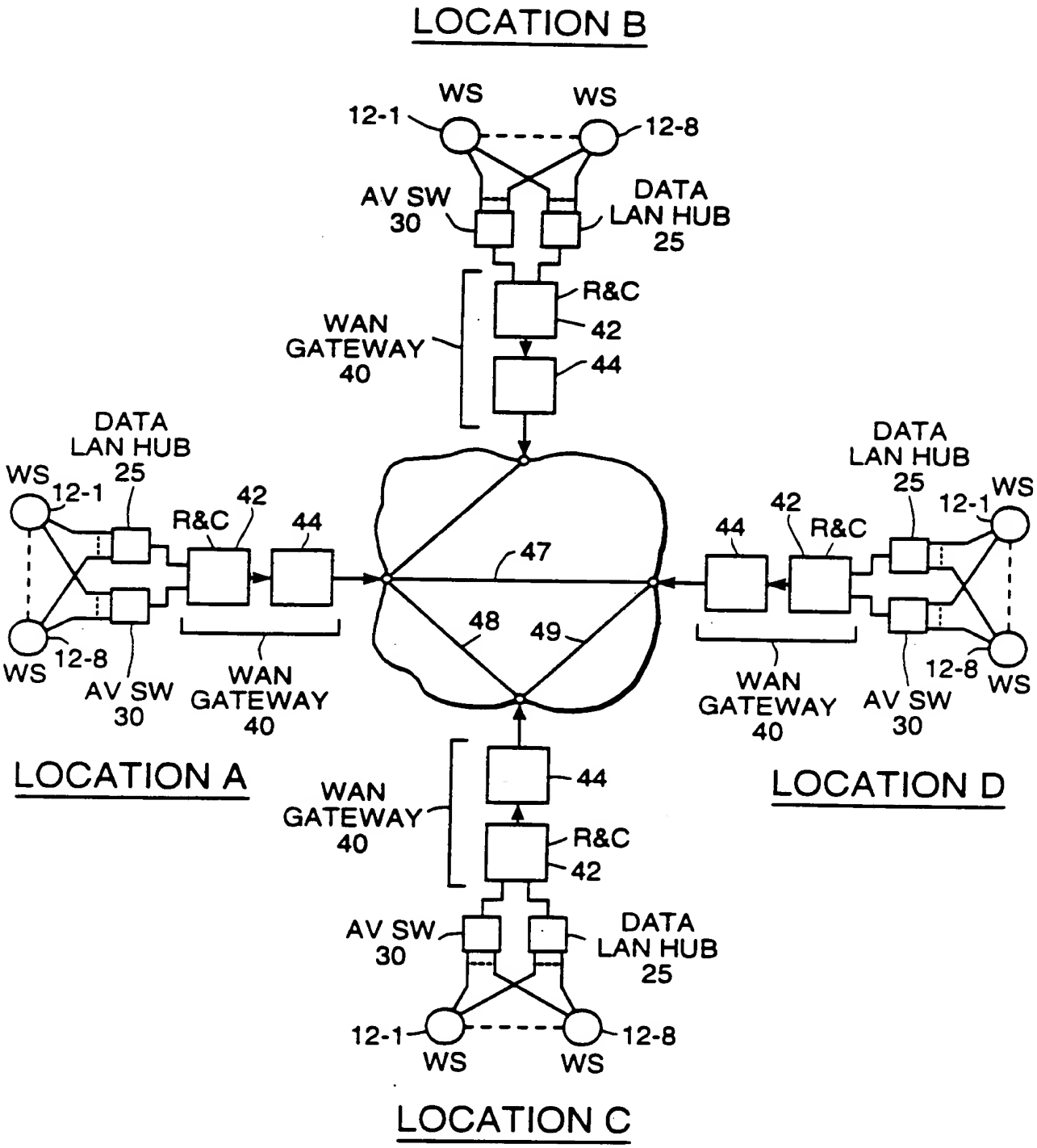


FIGURE 4

DRAFTSHAN

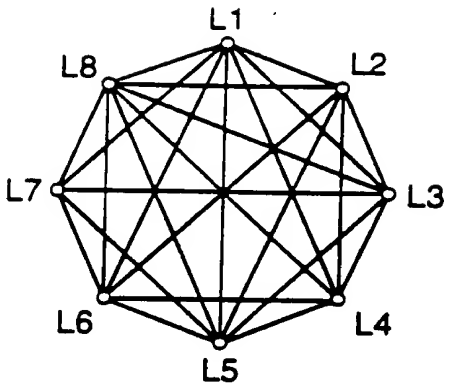


FIGURE 5

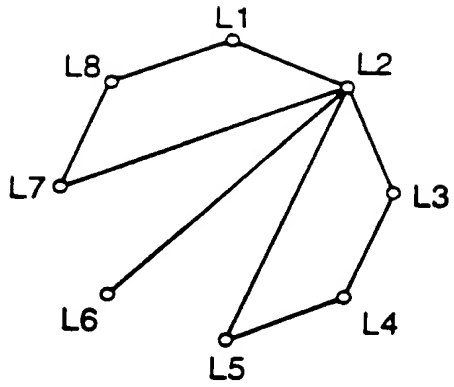


FIGURE 6

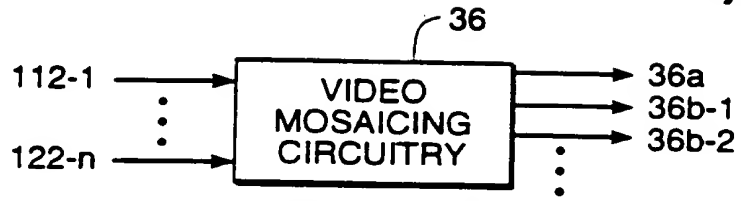


FIGURE 7

FIGURE 9

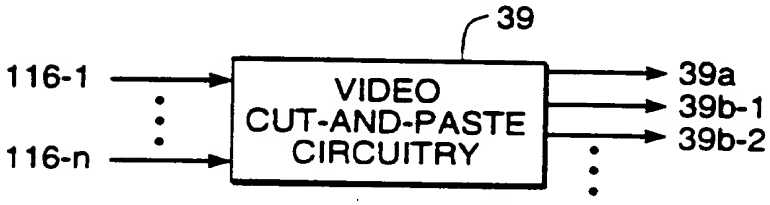


FIGURE 10

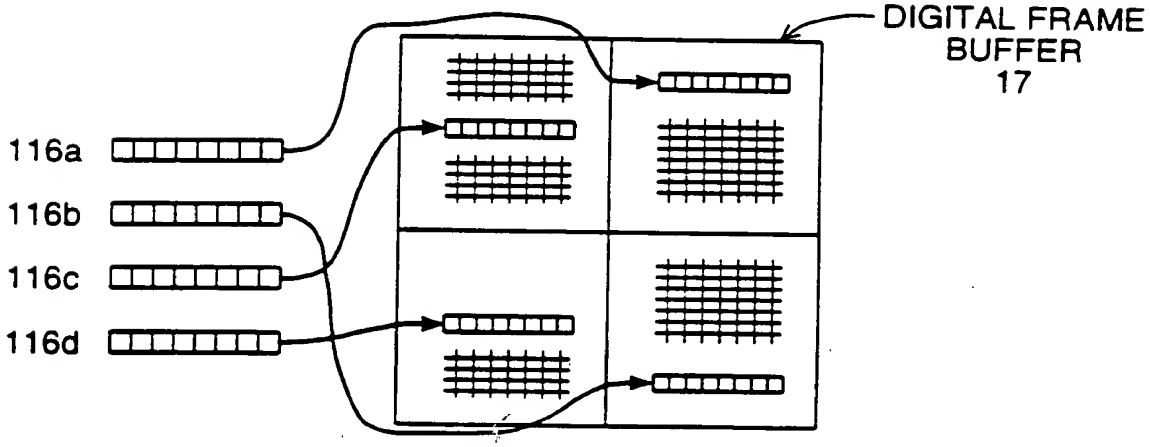


FIGURE 11

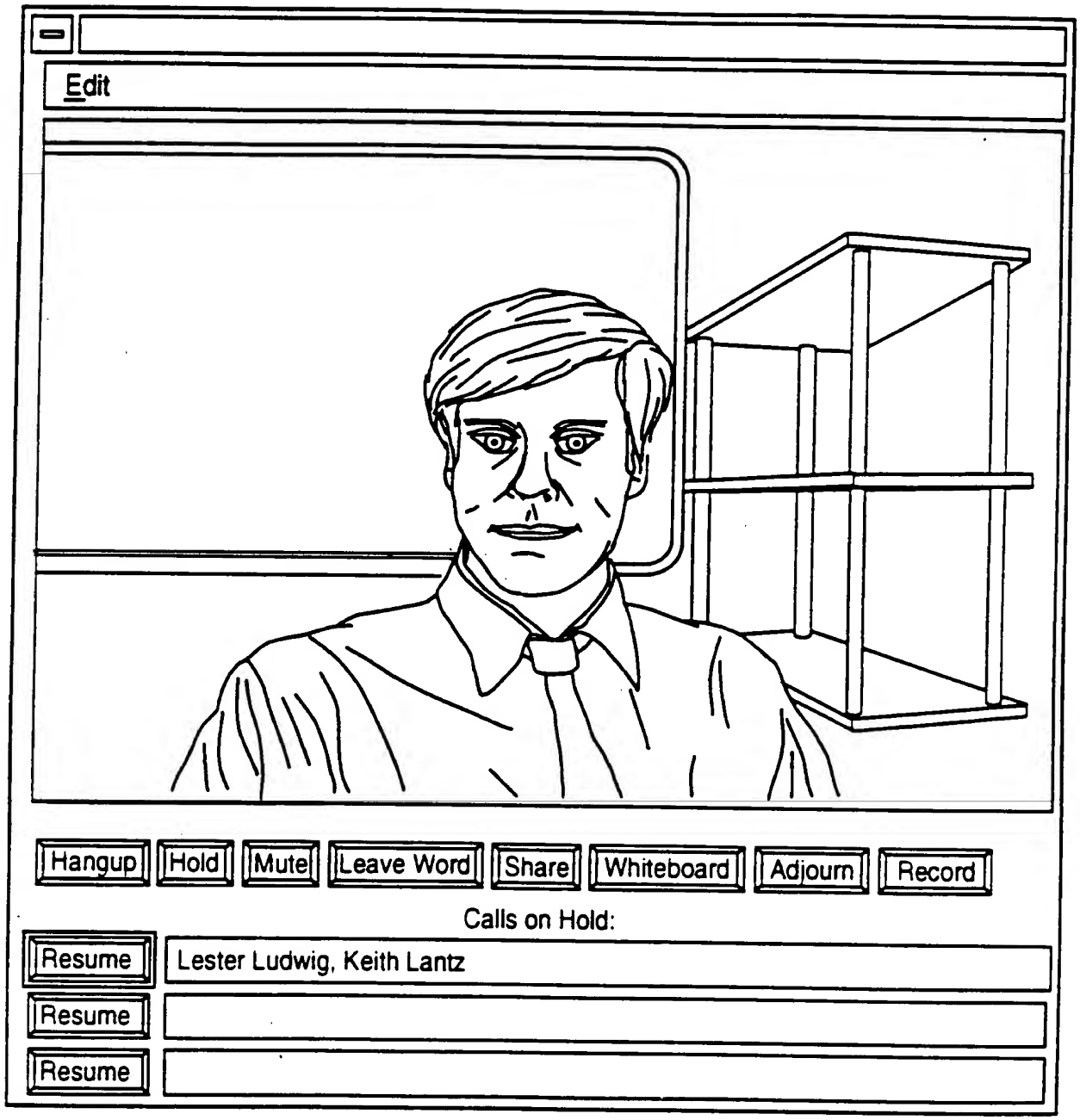

Edit
Hangup
Hold
Mute
Leave Word
Share
Whiteboard
Adjourn
Record
Calls on Hold:
Resume
Lester Ludwig, Keith Lantz
Resume
Resume

FIGURE 8A

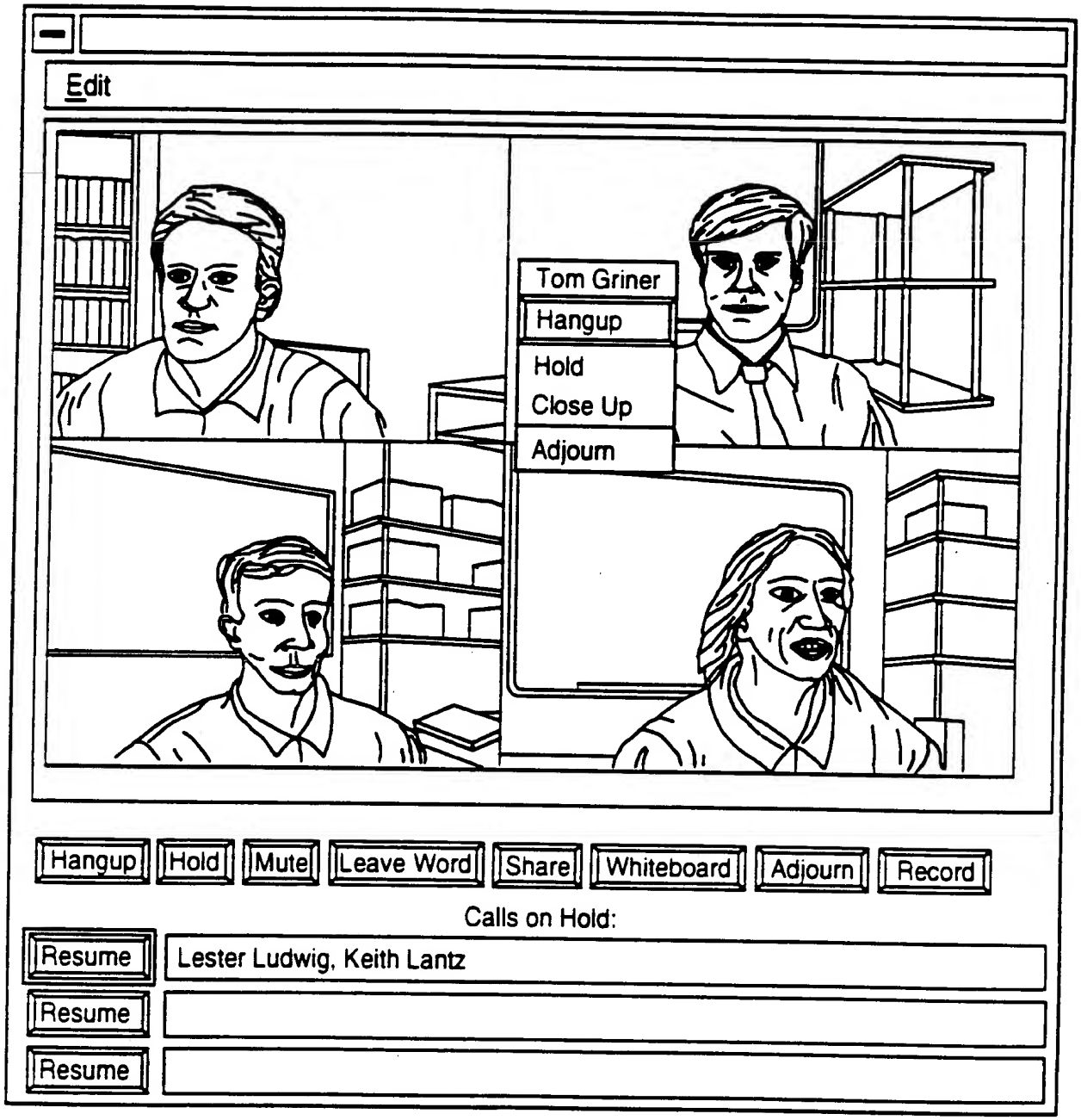

Edit
Tom Griner
Hangup
Hold
Close Up
Adjourn
Hangup
Hold
Mute
Leave Word
Share
Whiteboard
Adjourn
Record
Calls on Hold:
Resume
Lester Ludwig, Keith Lantz
Resume
Resume

FIGURE 8B

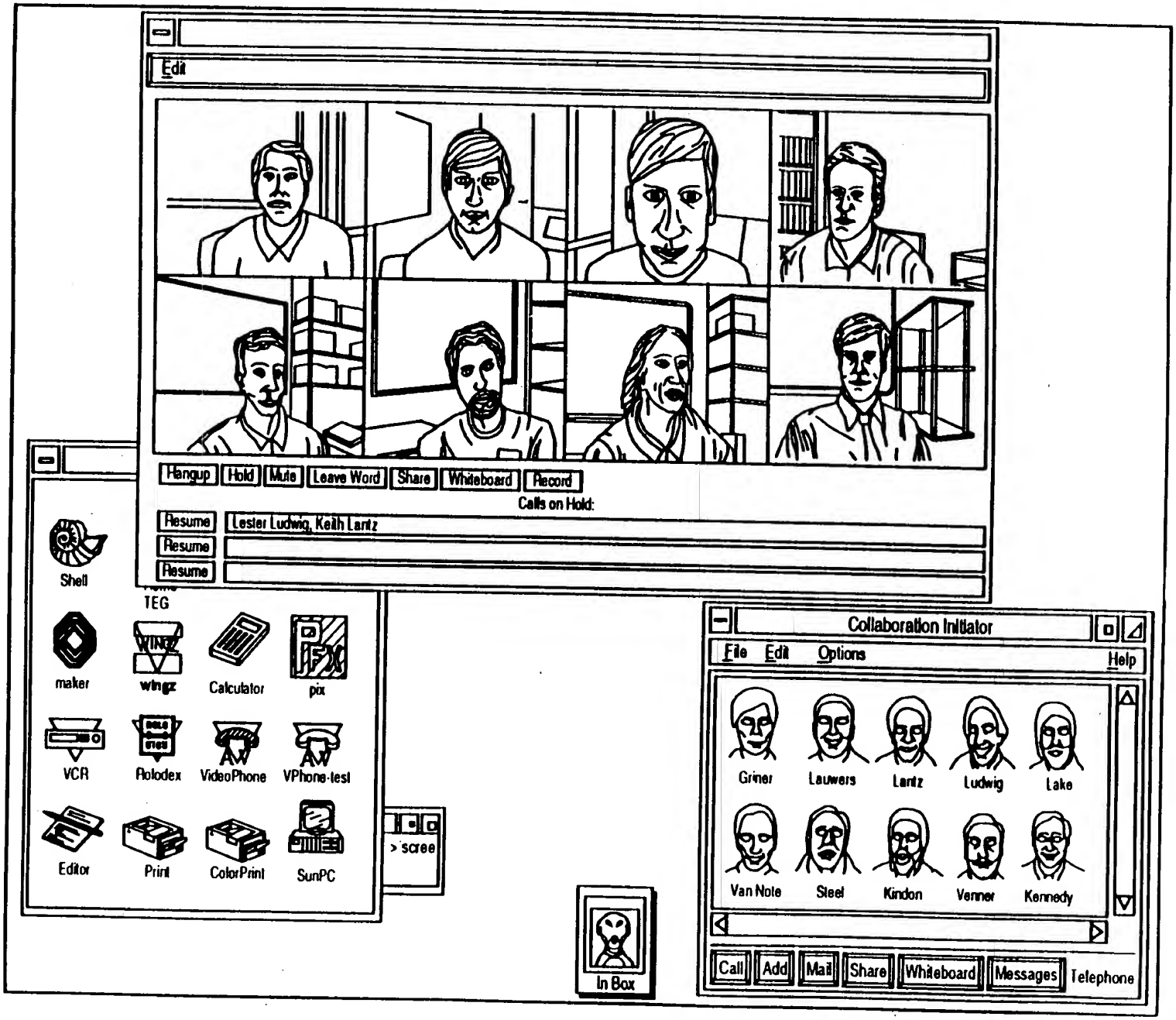

Edit
Hangup
Hold
Mute
Leave Word
Share
Whiteboard
Record
Calls on Hold:
Resume
Lester Ludwig, Keith Lantz
Resume
Resume
Shell
TEG
maker
wingz
Calculator
pix
VCR
Rolodex
VideoPhone
VPhone-test
Editor
Print
ColorPrint
SunPC
> scree
In Box
Collaboration Initiator
File
Edit
Options
Help
Griner
Lauwers
Lantz
Ludwig
Lake
Van Note
Steel
Kindon
Venner
Kennedy
Call
Add
Mail
Share
Whiteboard
Messages
Telephone

FIGURE 8C

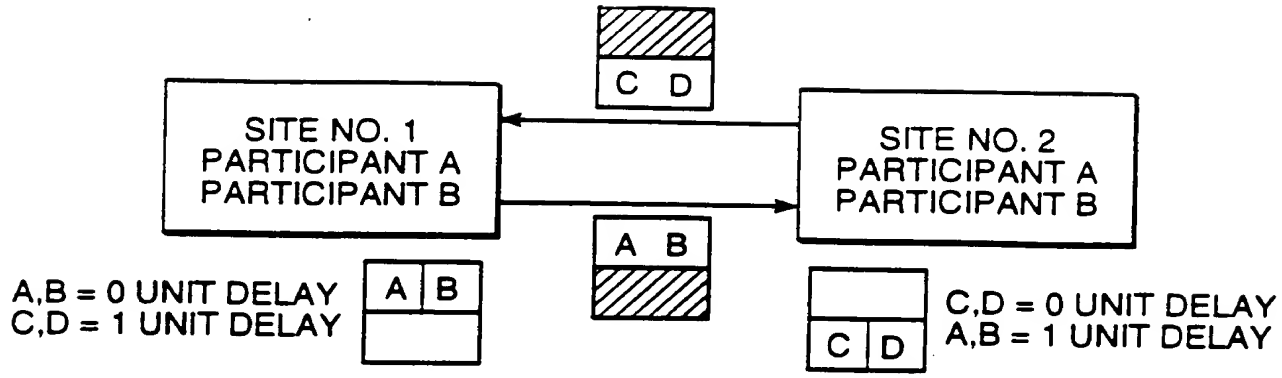


FIGURE 12A

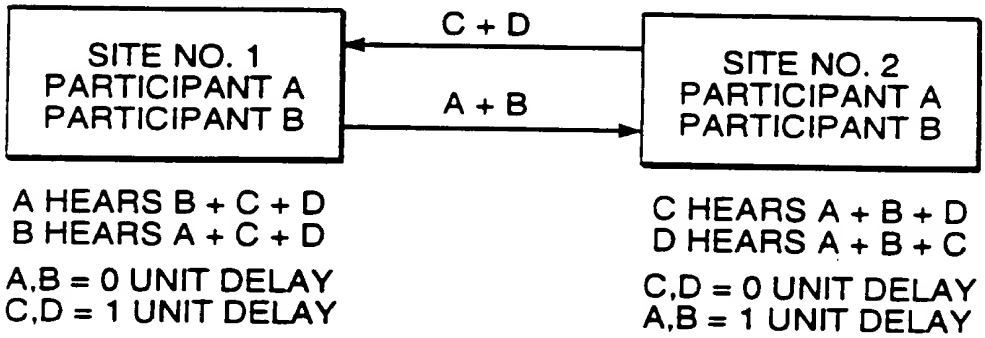


FIGURE 12B

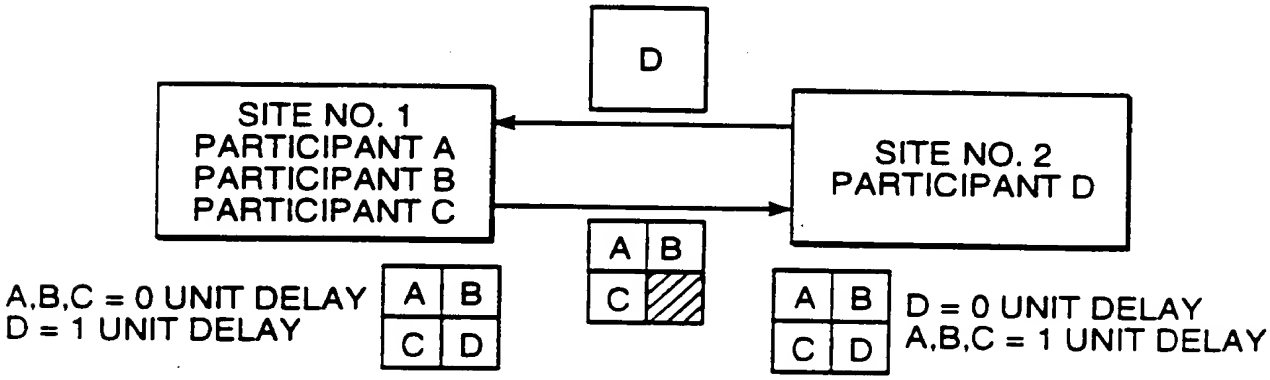


FIGURE 13A

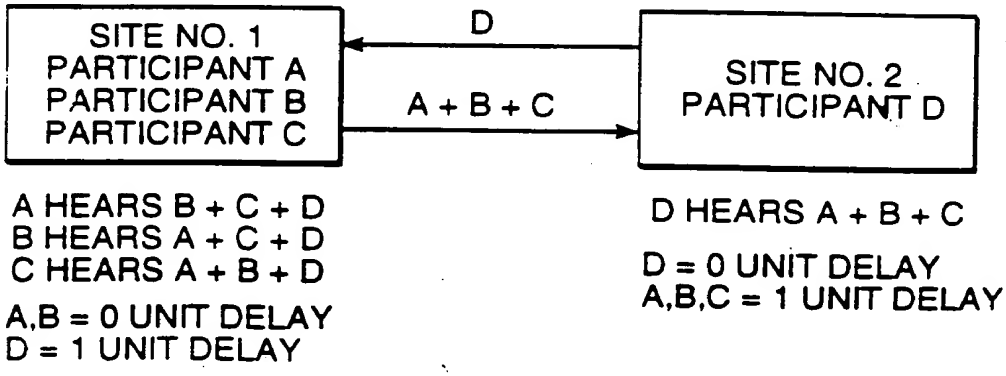
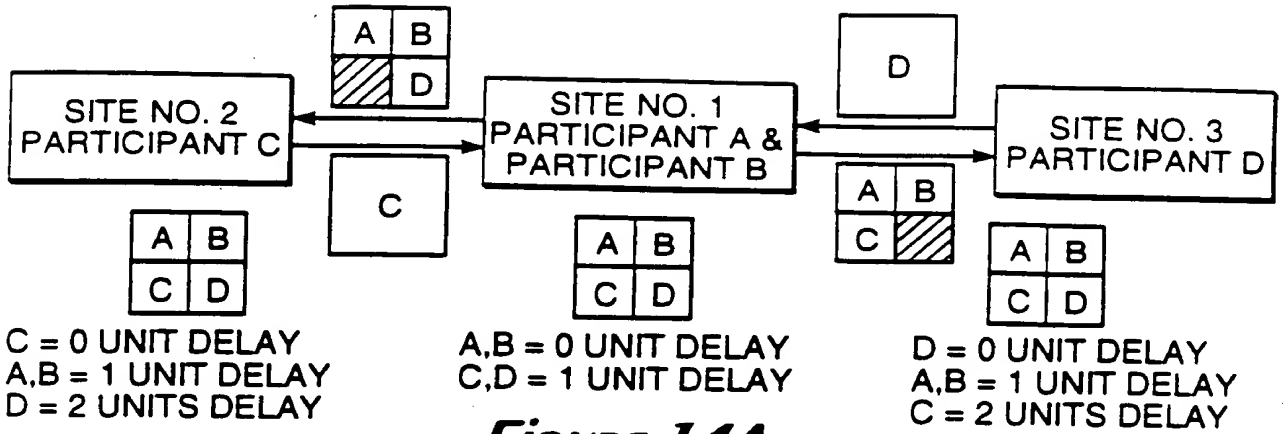


FIGURE 13B

DRAFTSMAN



C = 0 UNIT DELAY
A,B = 1 UNIT DELAY
D = 2 UNITS DELAY

A,B = 0 UNIT DELAY
C,D = 1 UNIT DELAY

D = 0 UNIT DELAY
A,B = 1 UNIT DELAY
C = 2 UNITS DELAY

FIGURE 14A

C HEARS A + B + C

C = 0 UNIT DELAY
A,B = 1 UNIT DELAY
D = 2 UNITS DELAY

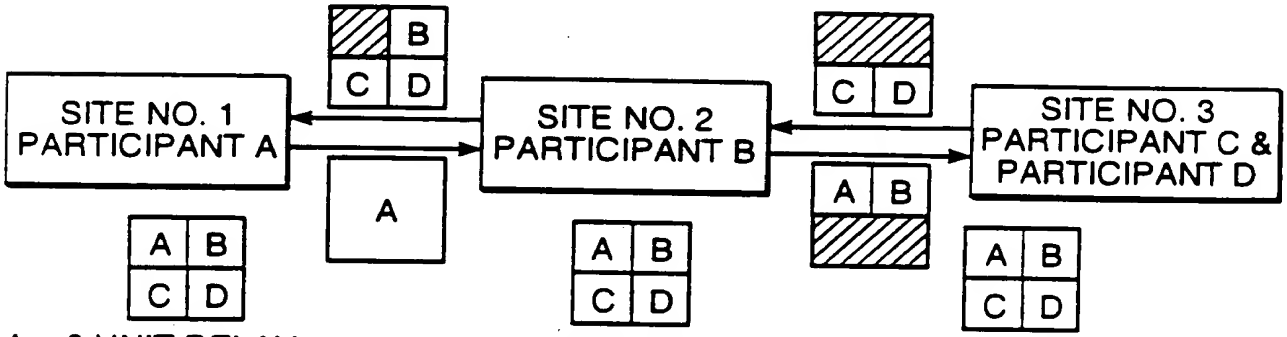
A HEARS B + C + D
B HEARS A + C + D

A,B = 0 UNIT DELAY
C,D = 1 UNIT DELAY

D HEARS A + B + C

D = 0 UNIT DELAY
A,B = 1 UNIT DELAY
C = 2 UNITS DELAY

FIGURE 14B



A = 0 UNIT DELAY
B = 1 UNIT DELAY
C,D = 2 UNITS DELAY

B = 0 UNIT DELAY
A,C,D = 1 UNIT DELAY

C,D = 0 UNIT DELAY
B = 1 UNIT DELAY
A = 2 UNITS DELAY

FIGURE 15A

A HEARS B + C + D

B = 1 UNIT DELAY
C,D = 2 UNITS DELAY

B HEARS A + C + D

A,C,D = 1 UNIT DELAY

C HEARS A + B + D
D HEARS A + B + C

C,D = 0 UNIT DELAY
B = 1 UNIT DELAY
A = 2 UNITS DELAY

FIGURE 15B

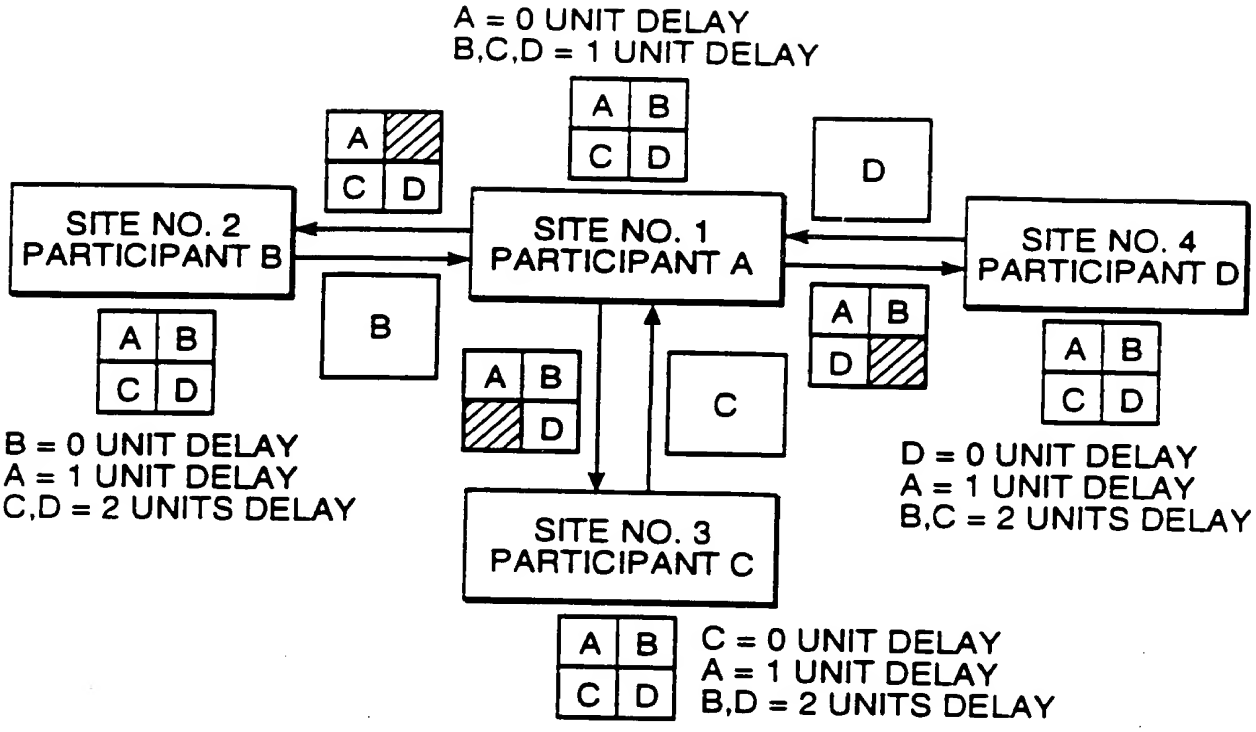

A = 0 UNIT DELAY
B,C,D = 1 UNIT DELAY
SITE NO. 1
PARTICIPANT A
SITE NO. 2
PARTICIPANT B
SITE NO. 3
PARTICIPANT C
SITE NO. 4
PARTICIPANT D
B = 0 UNIT DELAY
A = 1 UNIT DELAY
C,D = 2 UNITS DELAY
D = 0 UNIT DELAY
A = 1 UNIT DELAY
B,C = 2 UNITS DELAY
C = 0 UNIT DELAY
A = 1 UNIT DELAY
B,D = 2 UNITS DELAY

FIGURE 16

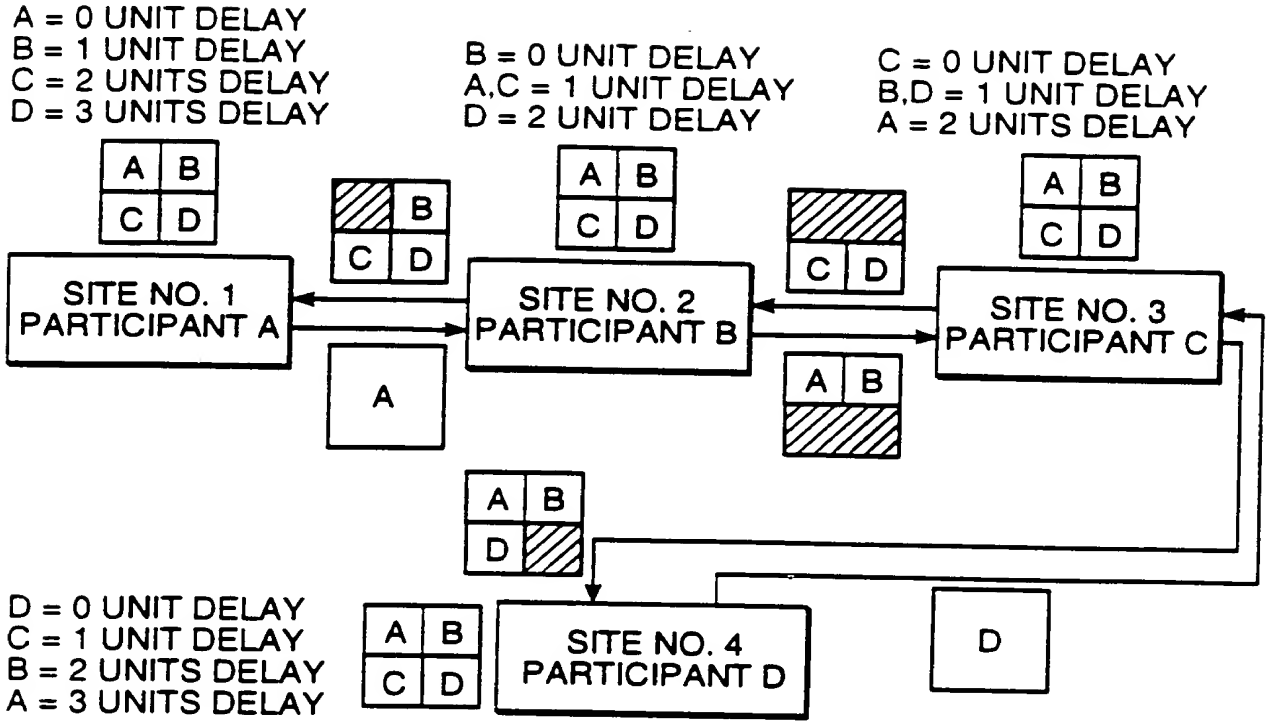


FIGURE 17A

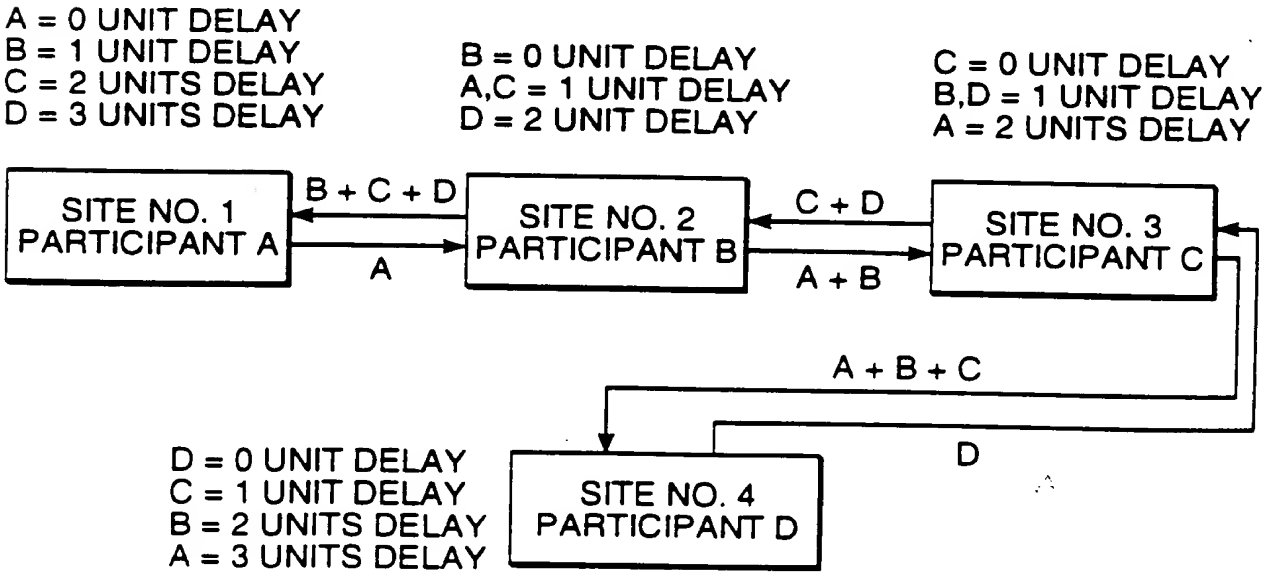


FIGURE 17B

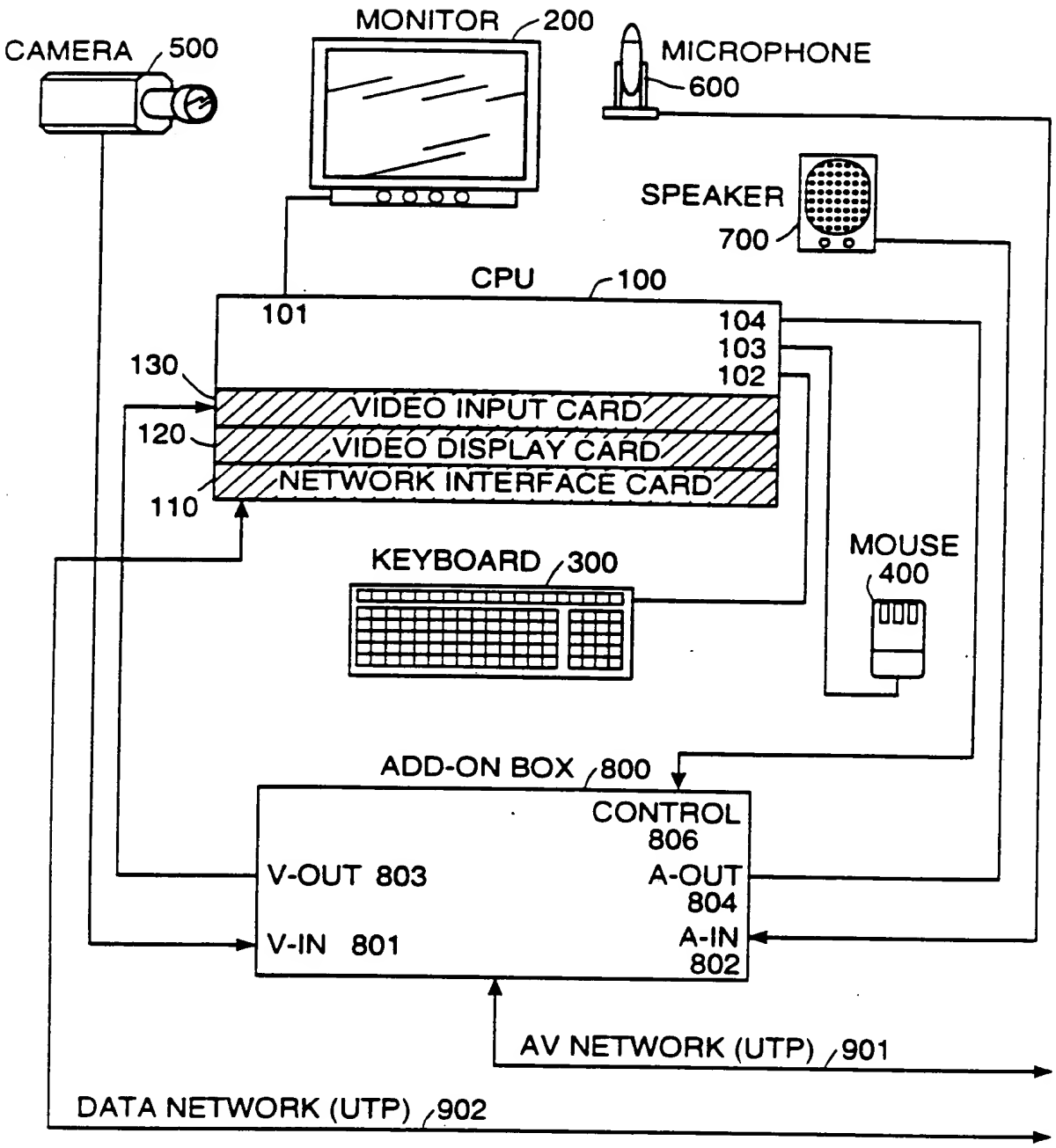

MONITOR 200
CAMERA 500
MICROPHONE 600
SPEAKER 700
CPU 100
101
104
103
102
130
VIDEO INPUT CARD
120
VIDEO DISPLAY CARD
NETWORK INTERFACE CARD
110
KEYBOARD 300
MOUSE 400
ADD-ON BOX 800
CONTROL 806
V-OUT 803
A-OUT 804
V-IN 801
A-IN 802
AV NETWORK (UTP) 901
DATA NETWORK (UTP) 902

FIGURE 18A

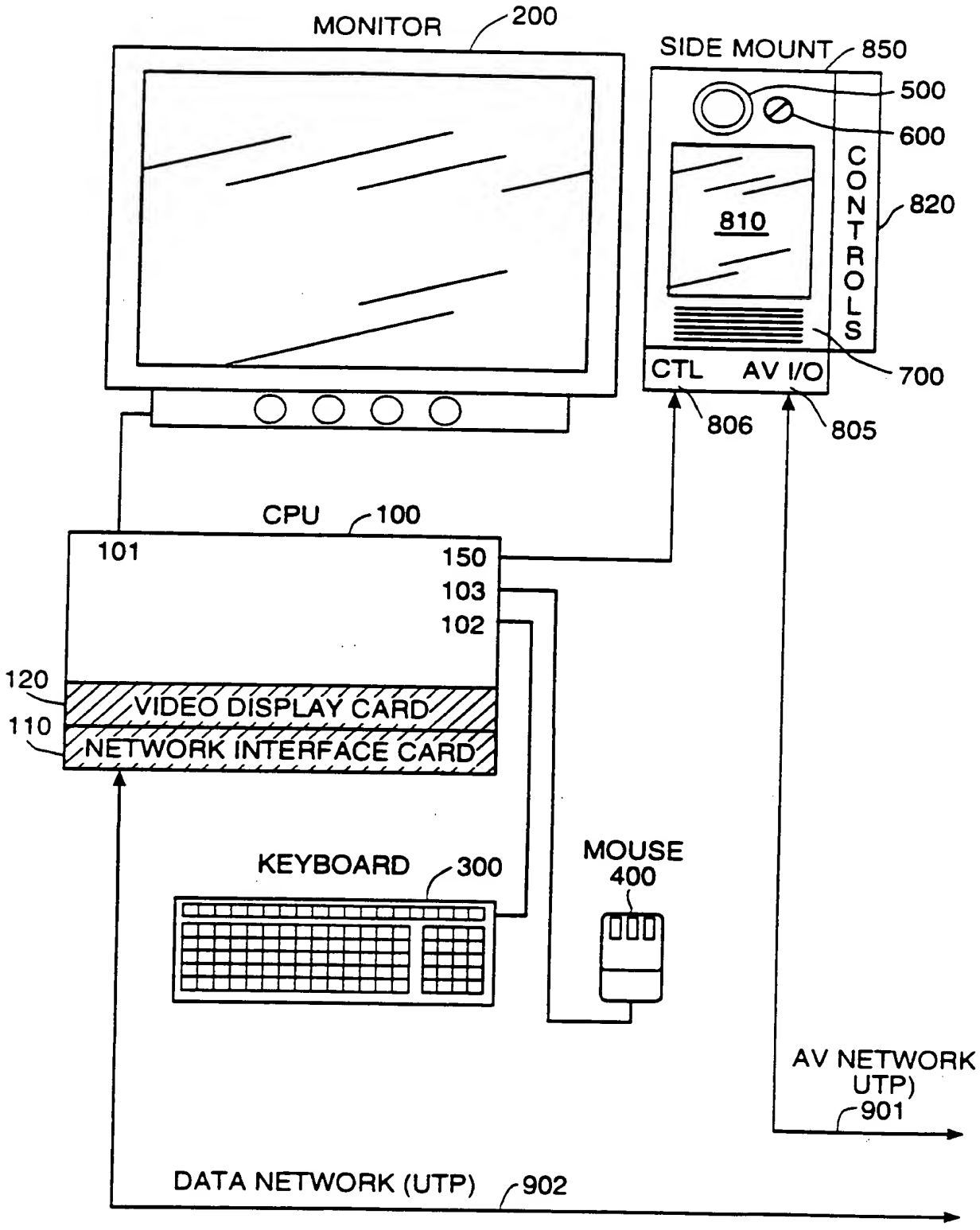

MONITOR
200
SIDE MOUNT
850
500
600
810
CONTROLS
820
CTL
AV I/O
700
806
805
CPU
100
101
150
103
102
120
VIDEO DISPLAY CARD
110
NETWORK INTERFACE CARD
KEYBOARD
300
MOUSE
400
AV NETWORK
UTP)
901
DATA NETWORK (UTP)
902

FIGURE 18B

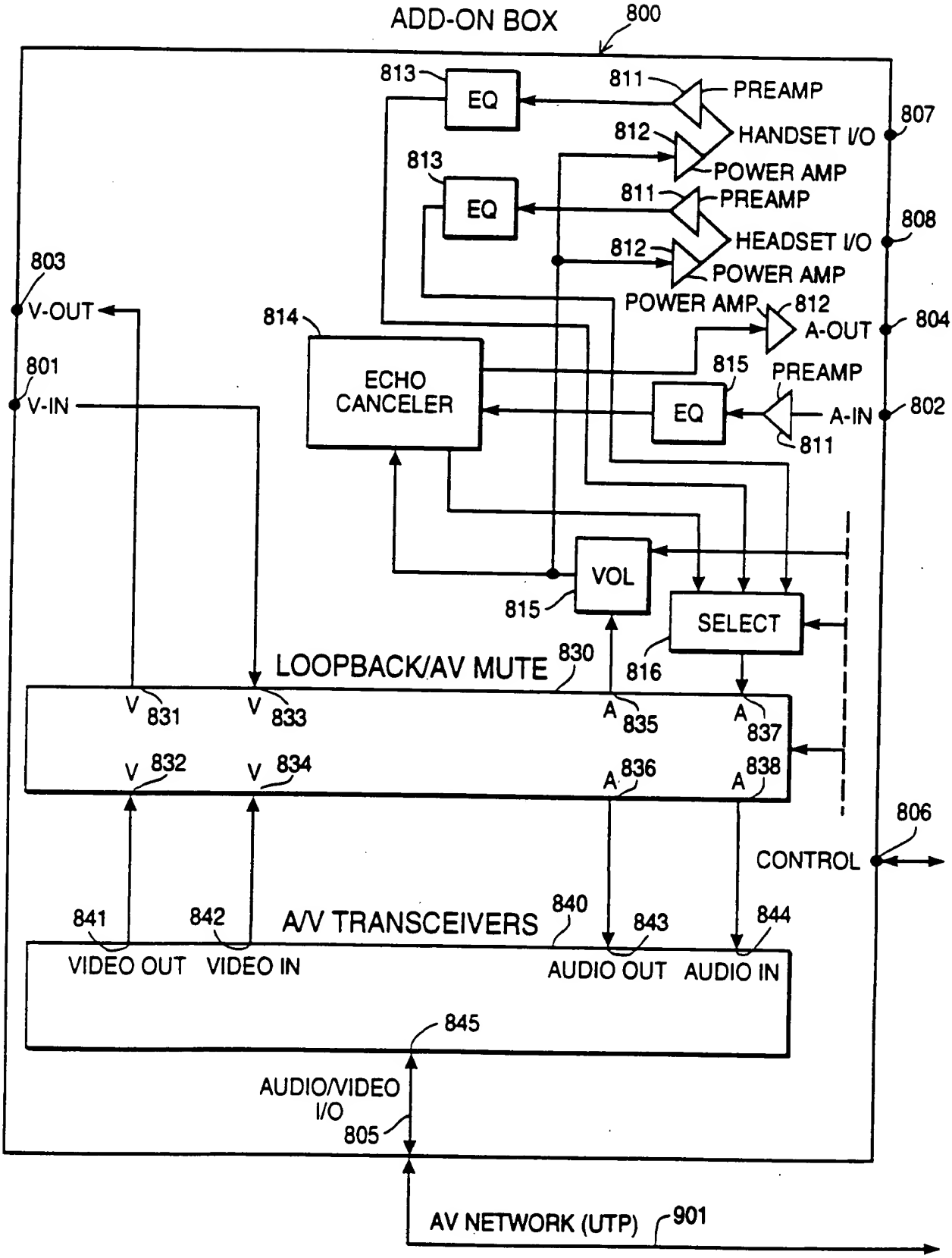

ADD-ON BOX
800
813
EQ
811
PREAMP
807
HANDSET I/O
812
POWER AMP
813
EQ
811
PREAMP
808
HEADSET I/O
812
POWER AMP
POWER AMP
812
A-OUT
804
803
V-OUT
814
ECHO CANCELER
815
PREAMP
801
V-IN
EQ
A-IN
802
811
VOL
815
SELECT
816
LOOPBACK/AV MUTE
830
V 831
V 833
A 835
A 837
V 832
V 834
A 836
A 838
806
CONTROL
841
842
A/V TRANSCEIVERS
840
843
844
VIDEO OUT
VIDEO IN
AUDIO OUT
AUDIO IN
845
AUDIO/VIDEO I/O
805
AV NETWORK (UTP)
901

FIGURE 19

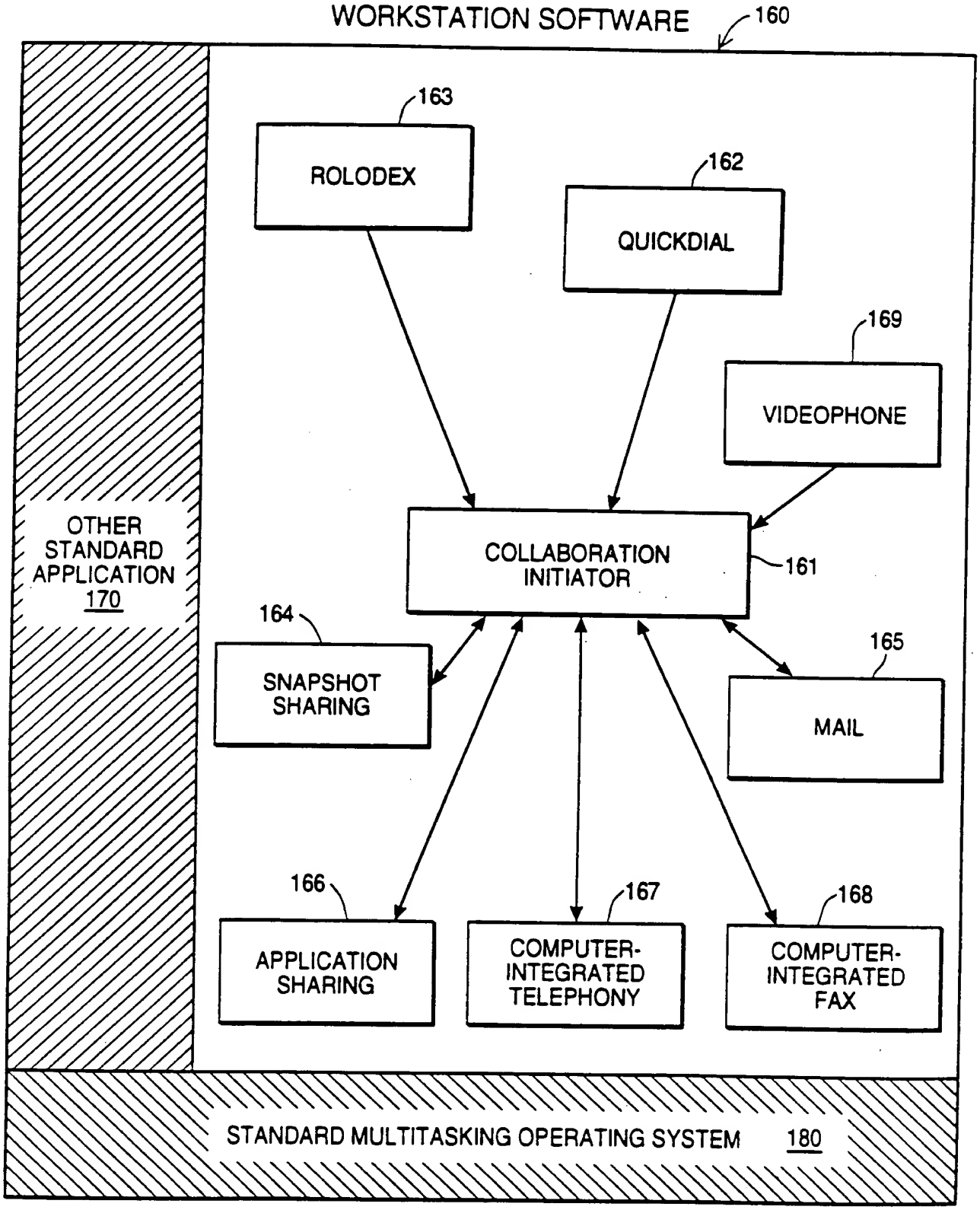

WORKSTATION SOFTWARE
160
163
ROLODEX
162
QUICKDIAL
169
VIDEOPHONE
OTHER STANDARD APPLICATION 170
COLLABORATION INITIATOR
161
164
SNAPSHOT SHARING
165
MAIL
166
APPLICATION SHARING
167
COMPUTER-INTEGRATED TELEPHONY
168
COMPUTER-INTEGRATED FAX
STANDARD MULTITASKING OPERATING SYSTEM 180

FIGURE 20

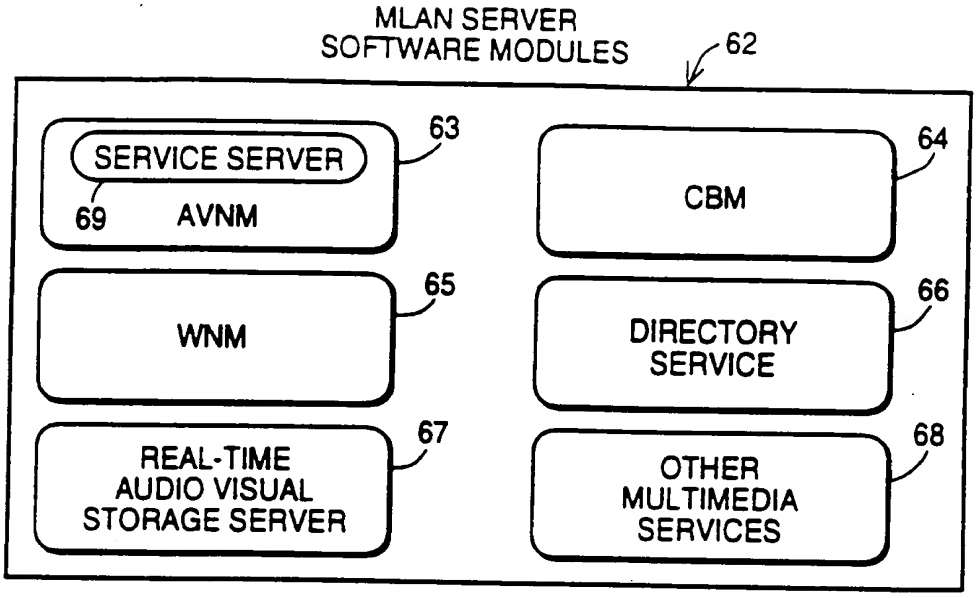


FIGURE 21

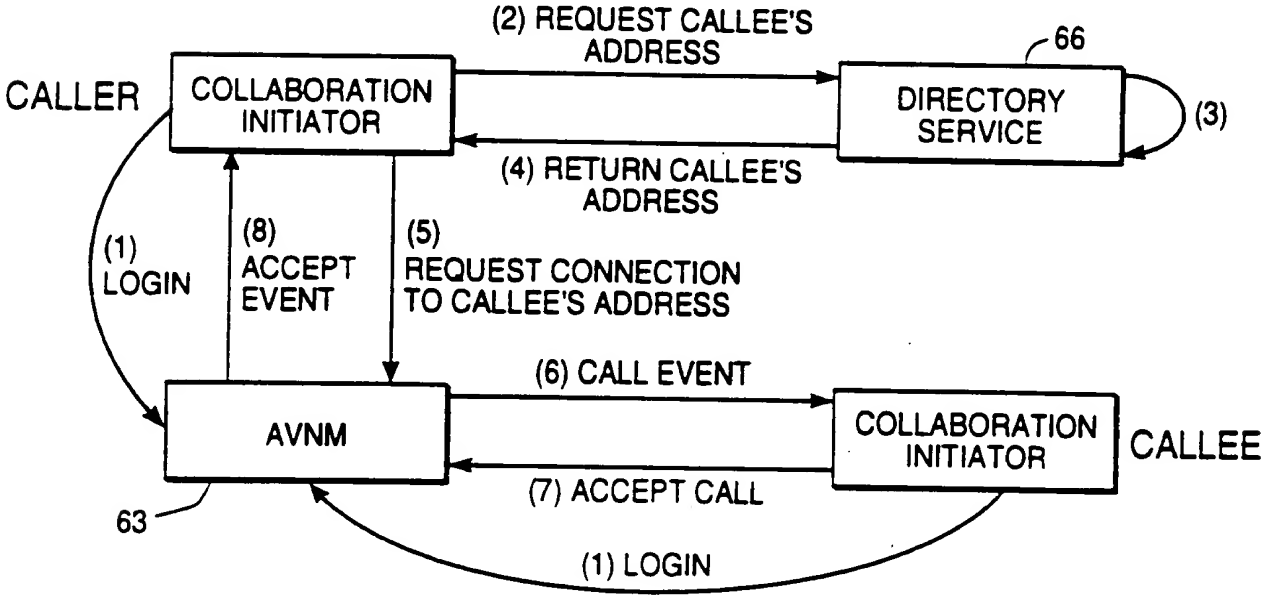


FIGURE 23

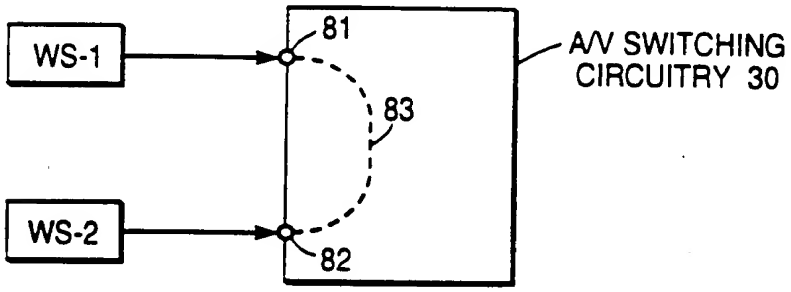


FIGURE 24

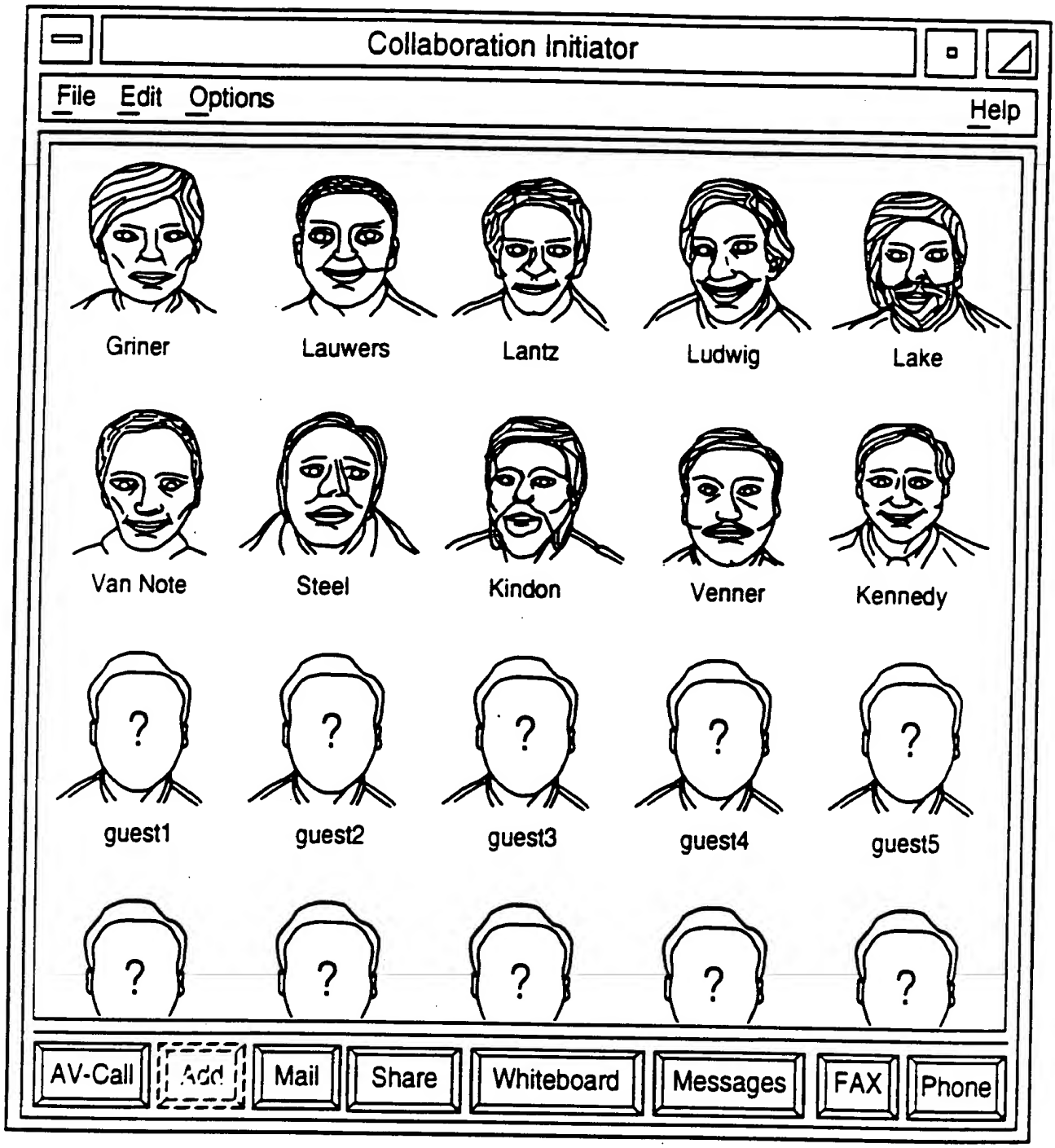

Collaboration Initiator
File Edit Options
Help
Griner
Lauwers
Lantz
Ludwig
Lake
Van Note
Steel
Kindon
Venner
Kennedy
guest1
guest2
guest3
guest4
guest5
AV-Call
Add
Mail
Share
Whiteboard
Messages
FAX
Phone

FIGURE 22

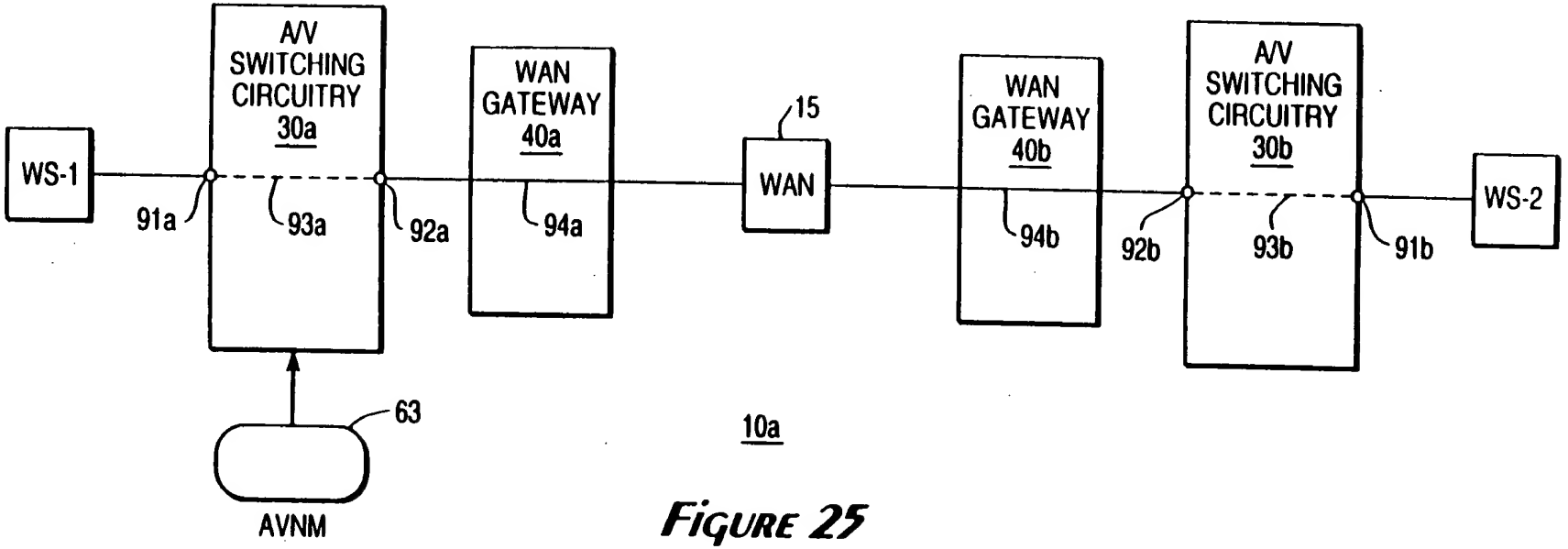


FIGURE 25

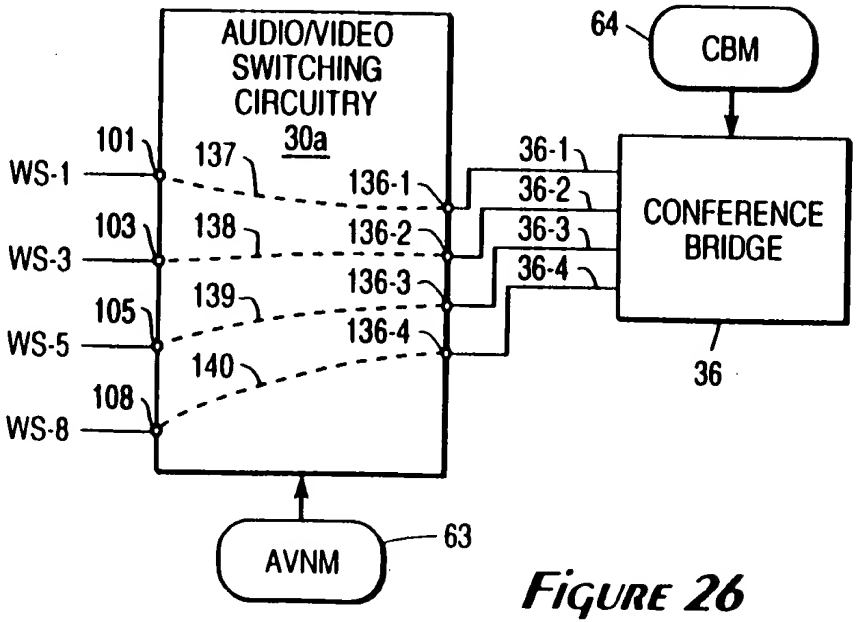


FIGURE 26

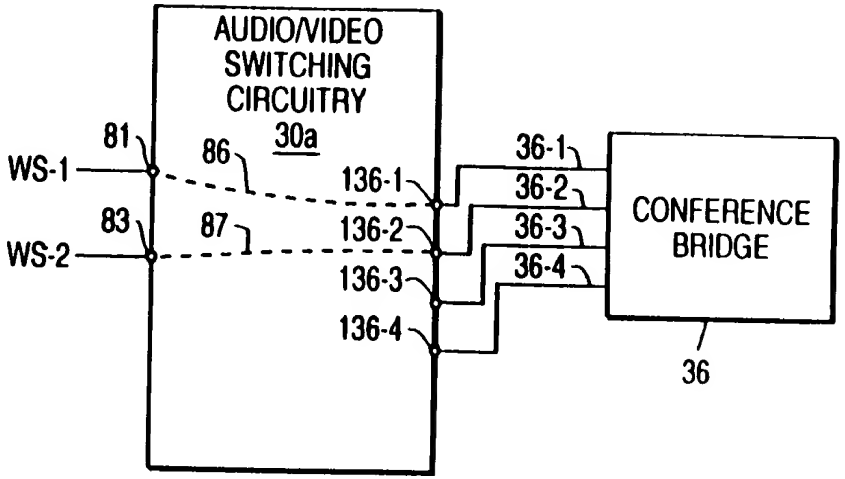


FIGURE 27

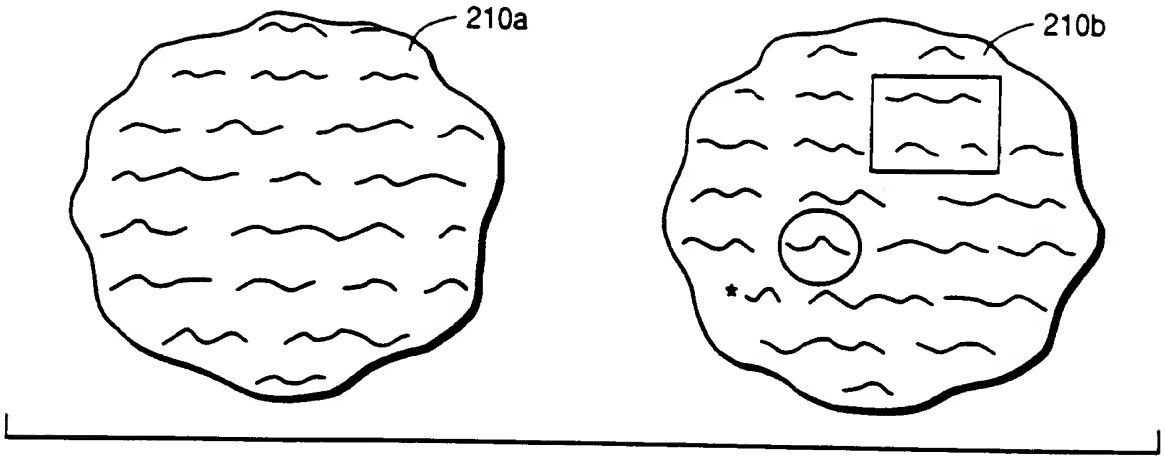


FIGURE 28

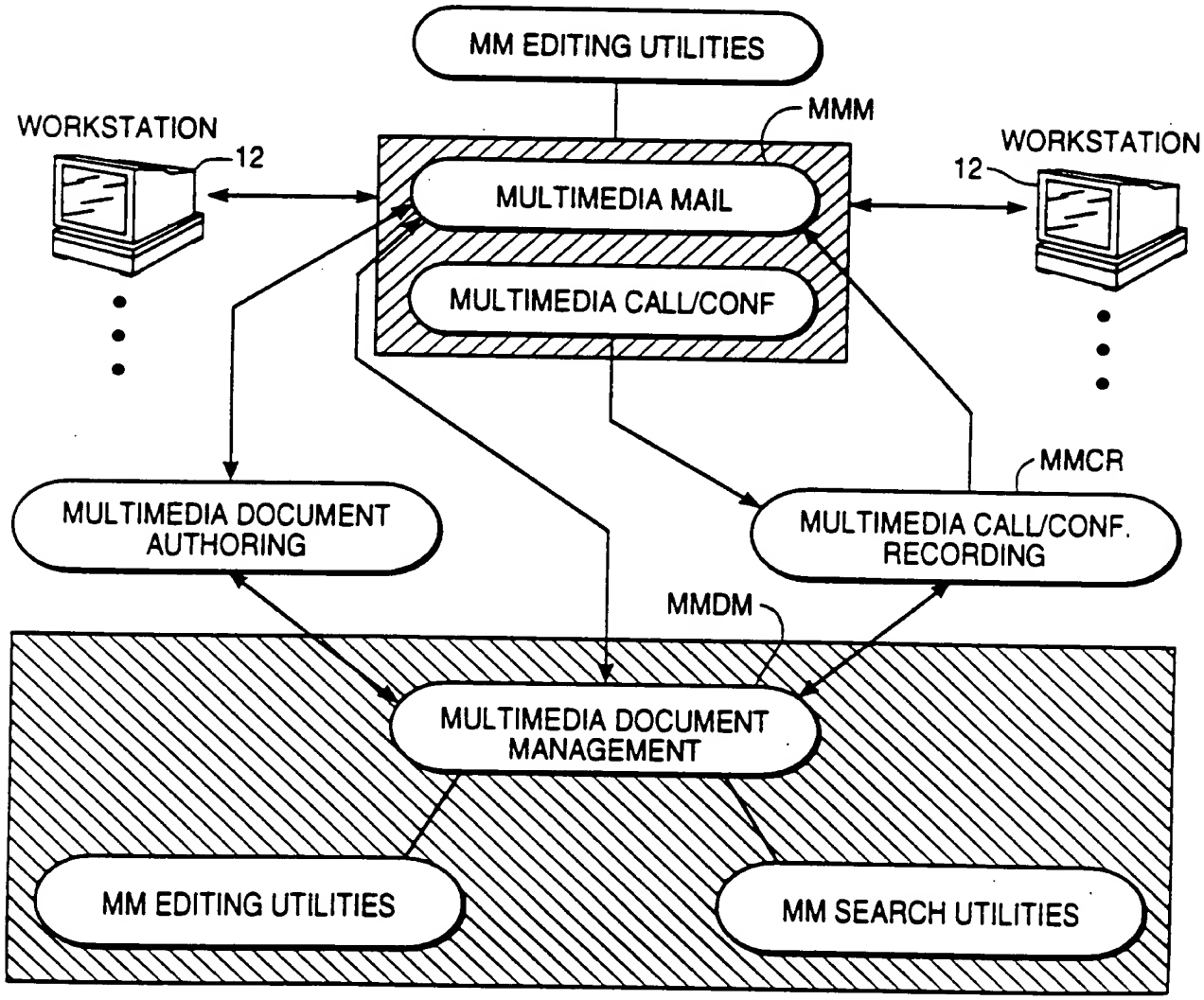


FIGURE 29

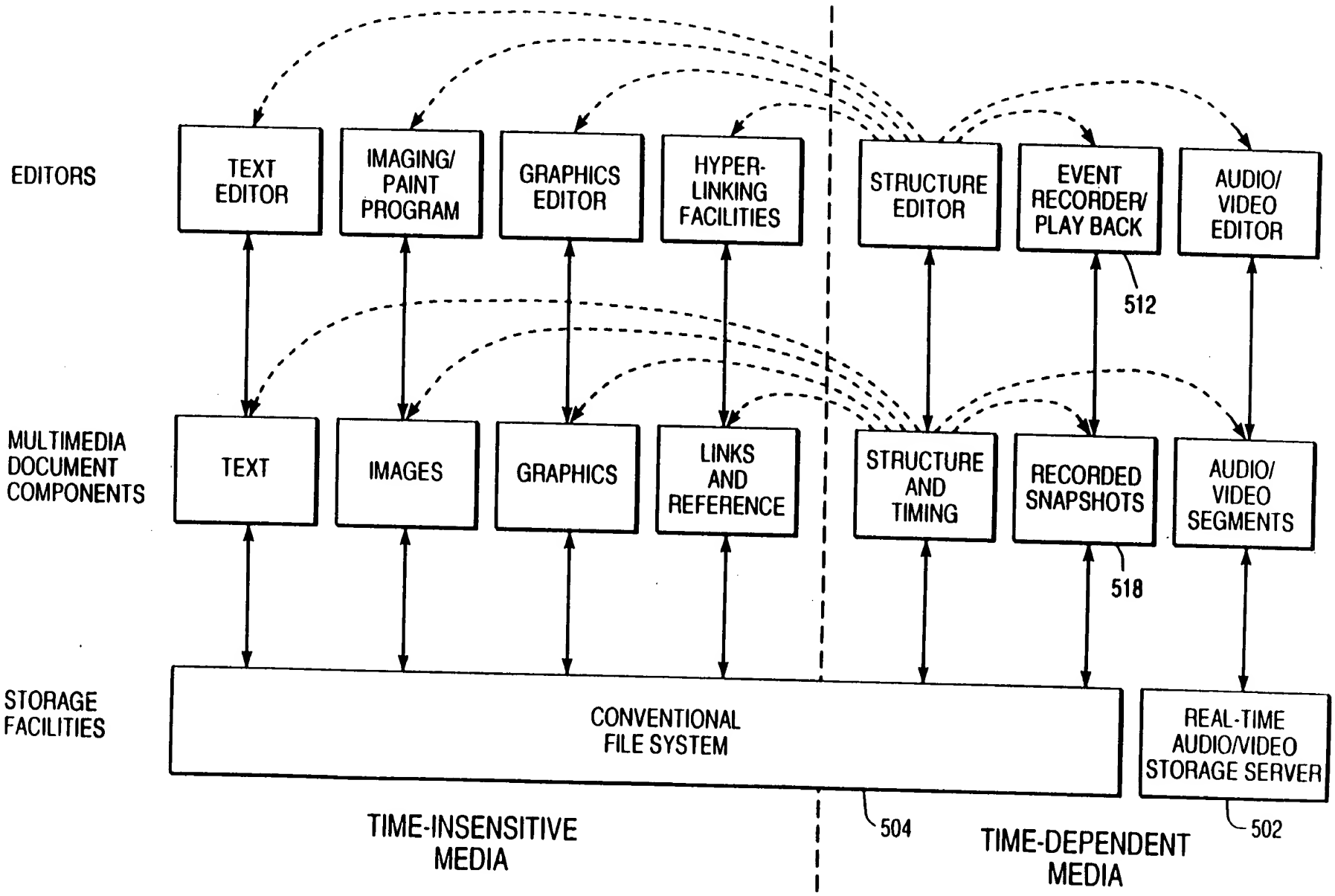

EDITORS
TEXT EDITOR
IMAGING/ PAINT PROGRAM
GRAPHICS EDITOR
HYPER-LINKING FACILITIES
STRUCTURE EDITOR
EVENT RECORDER/ PLAY BACK
AUDIO/ VIDEO EDITOR
512
MULTIMEDIA DOCUMENT COMPONENTS
TEXT
IMAGES
GRAPHICS
LINKS AND REFERENCE
STRUCTURE AND TIMING
RECORDED SNAPSHOTS
AUDIO/ VIDEO SEGMENTS
518
STORAGE FACILITIES
CONVENTIONAL FILE SYSTEM
REAL-TIME AUDIO/VIDEO STORAGE SERVER
504
502
TIME-INSENSITIVE MEDIA
TIME-DEPENDENT MEDIA

Figure 30

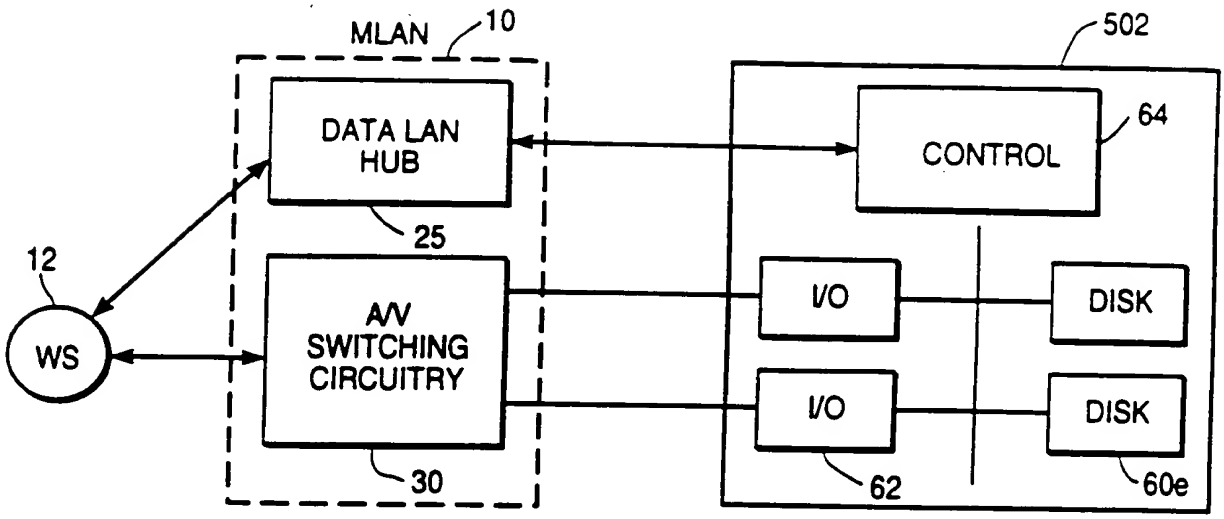


FIGURE 31A

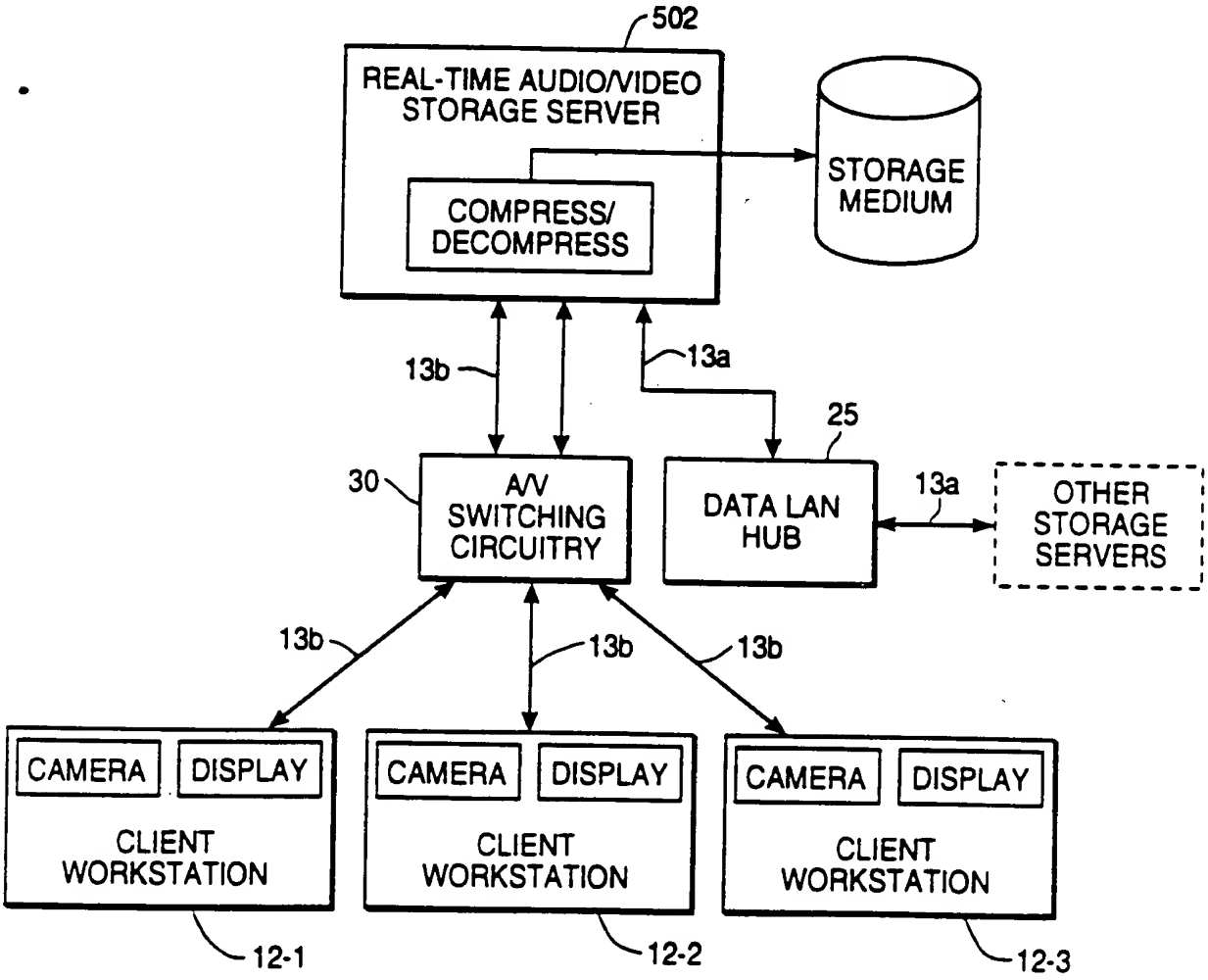


FIGURE 31B

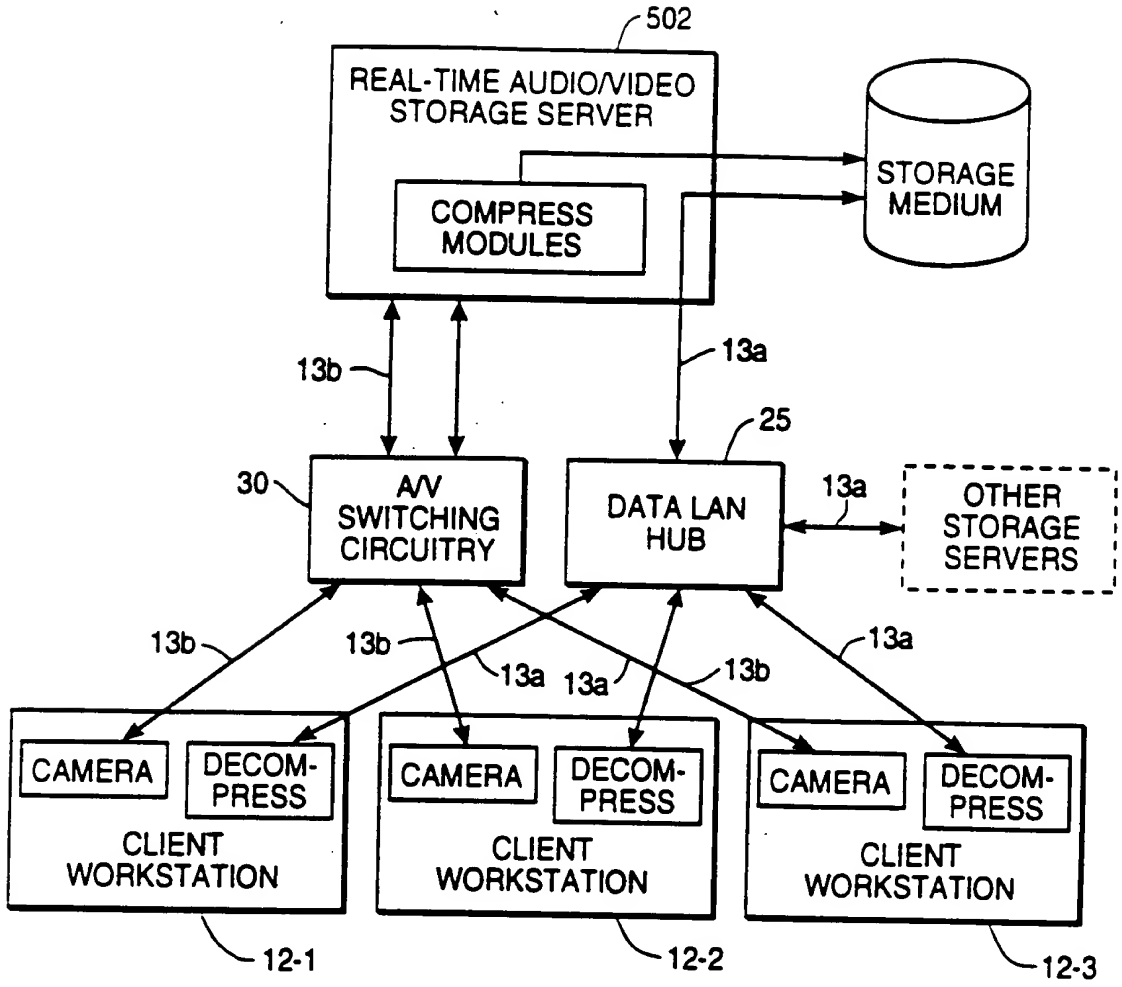


FIGURE 31C

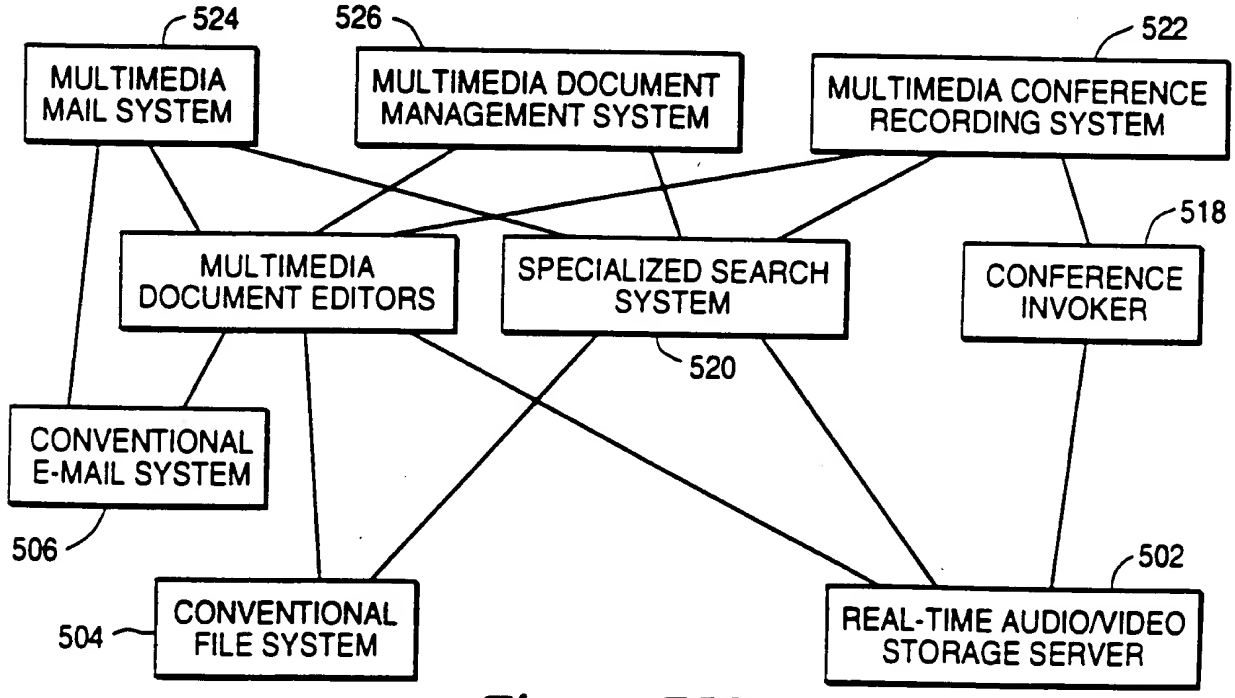


FIGURE 31D

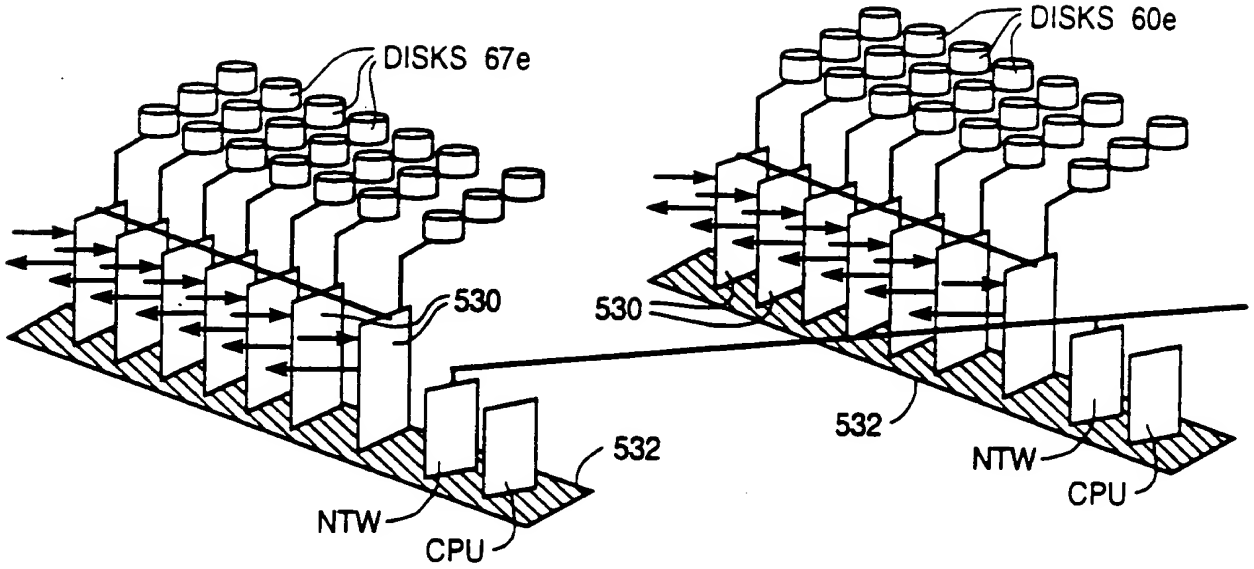


FIGURE 32

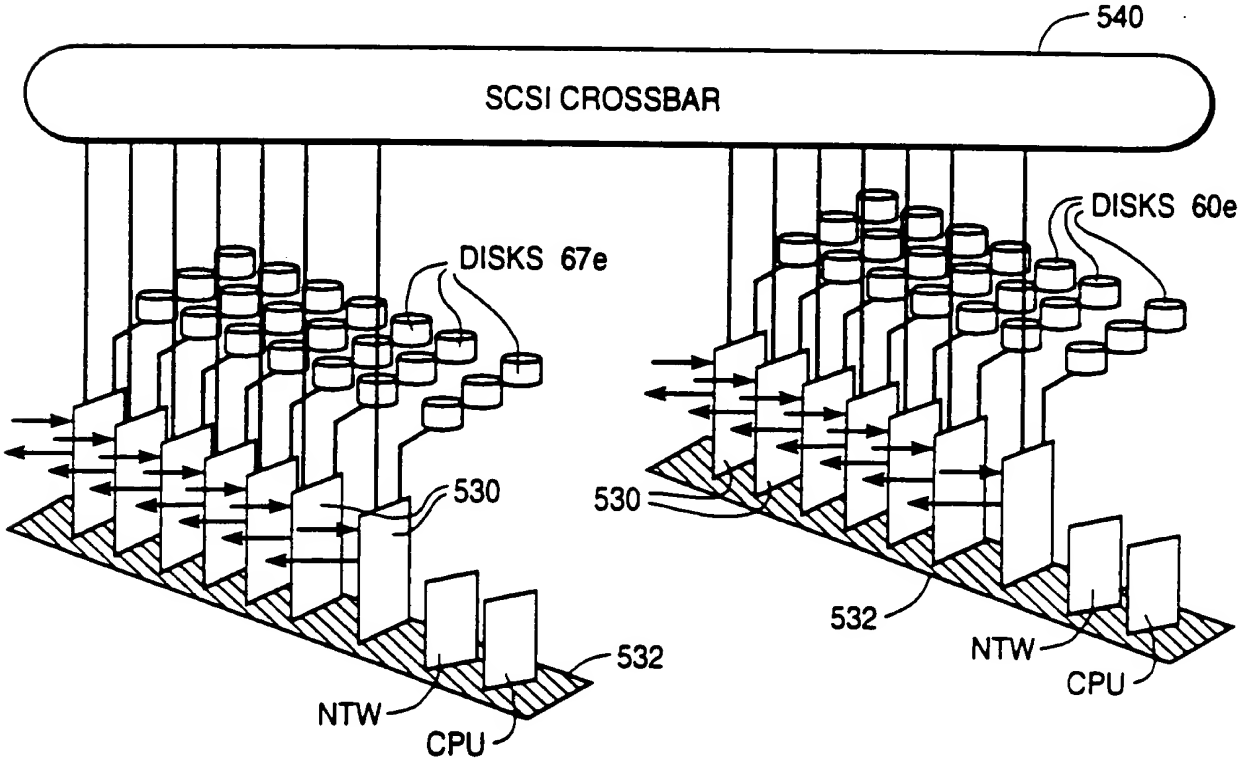


FIGURE 33

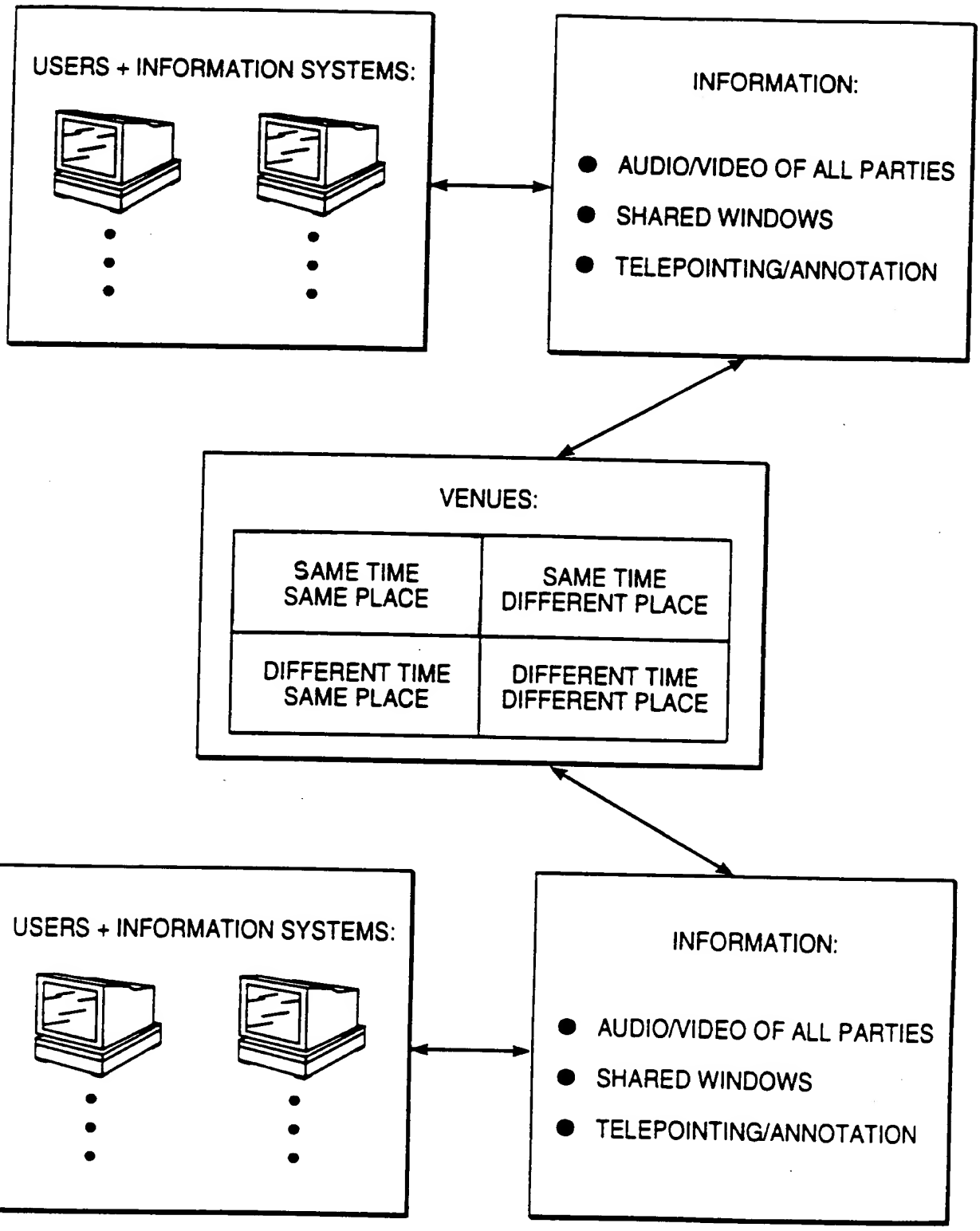

USERS + INFORMATION SYSTEMS:
INFORMATION:
AUDIO/VIDEO OF ALL PARTIES
SHARED WINDOWS
TELEPOINTING/ANNOTATION
VENUES:
SAME TIME SAME PLACE
SAME TIME DIFFERENT PLACE
DIFFERENT TIME SAME PLACE
DIFFERENT TIME DIFFERENT PLACE
USERS + INFORMATION SYSTEMS:
INFORMATION:
AUDIO/VIDEO OF ALL PARTIES
SHARED WINDOWS
TELEPOINTING/ANNOTATION

FIGURE 34

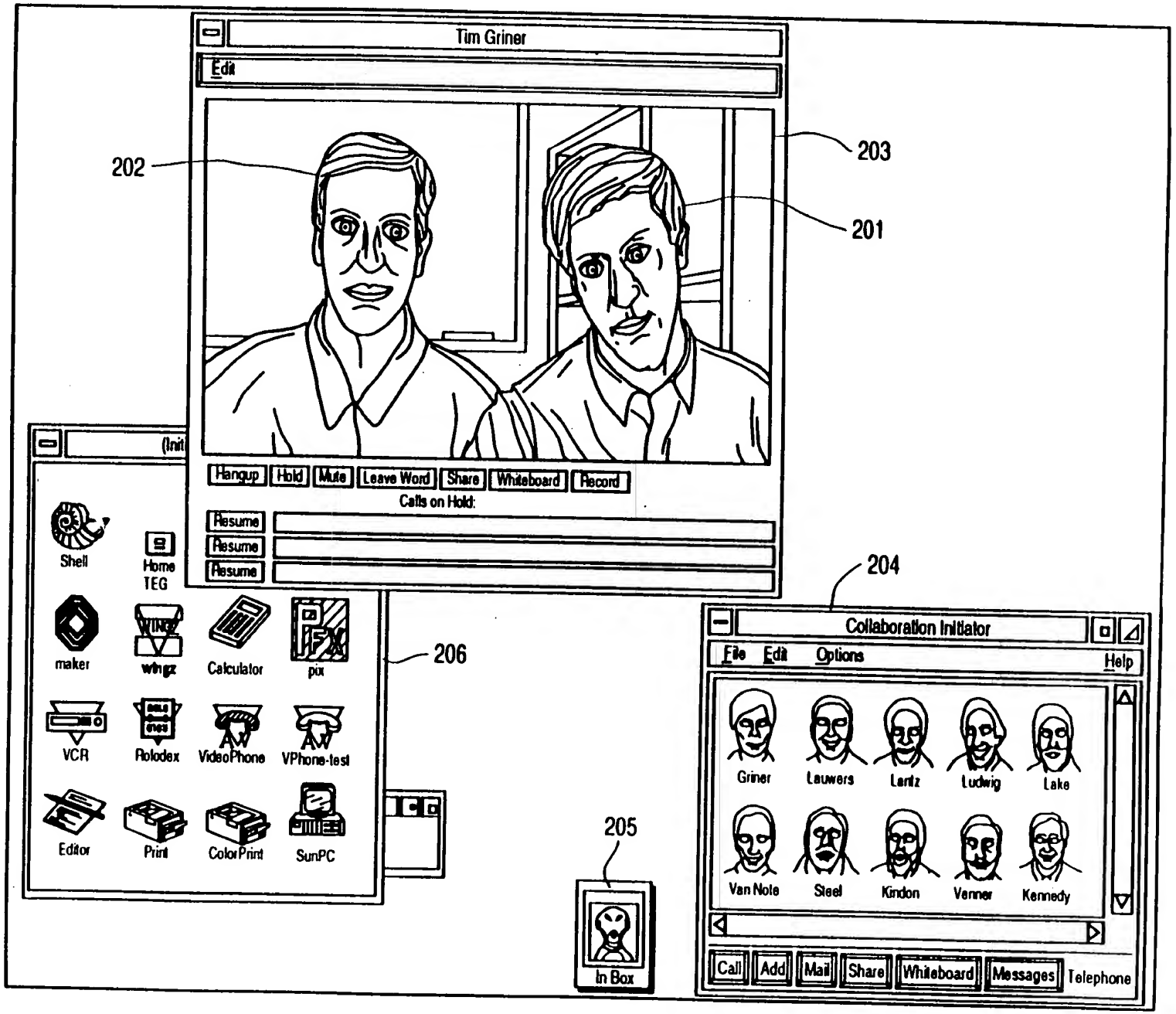
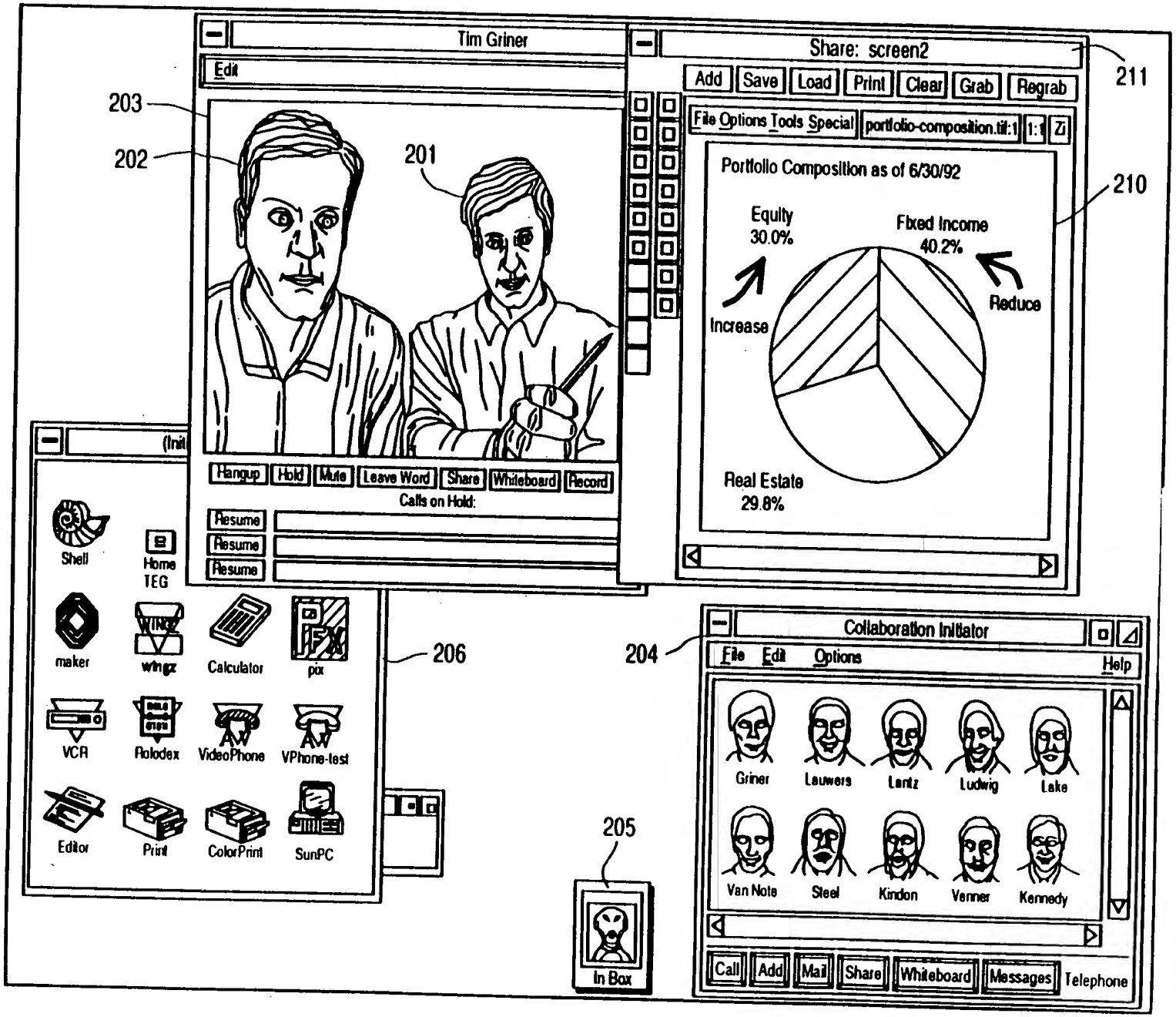

Tim Griner
Edit
202
203
201
Hangup
Hold
Mute
Leave Word
Share
Whiteboard
Record
Calls on Hold:
Resume
Resume
Resume
Shell
Home TEG
maker
whgz
Calculator
pix
VCR
Rolodex
VideoPhone
VPhone-test
Editor
Print
ColorPrint
SunPC
206
204
Collaboration Initiator
File
Edit
Options
Help
Griner
Lauwers
Lantz
Ludwig
Lake
Van Note
Steel
Kindon
Venner
Kennedy
Call
Add
Mail
Share
Whiteboard
Messages
Telephone
205
In Box

FIGURE 35


Tim Griner
Edit
203
202
201
Hangup
Hold
Mute
Leave Word
Share
Whiteboard
Record
Calls on Hold:
Resume
Resume
Resume
Share: screen2
211
Add
Save
Load
Print
Clear
Grab
Regrab
File Options Tools Special
portfolio-composition.til:1
1:1
Zi
Portfolio Composition as of 6/30/92
210
Equity
30.0%
Fixed Income
40.2%
Increase
Reduce
Real Estate
29.8%
Shell
Home
TEG
maker
wingz
Calculator
pix
VCR
Rolodex
VideoPhone
VPhone-test
Editor
Print
ColorPrint
SunPC
206
204
Collaboration Initiator
File Edit Options Help
Griner
Lauwers
Lantz
Ludwig
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Venner
Kennedy
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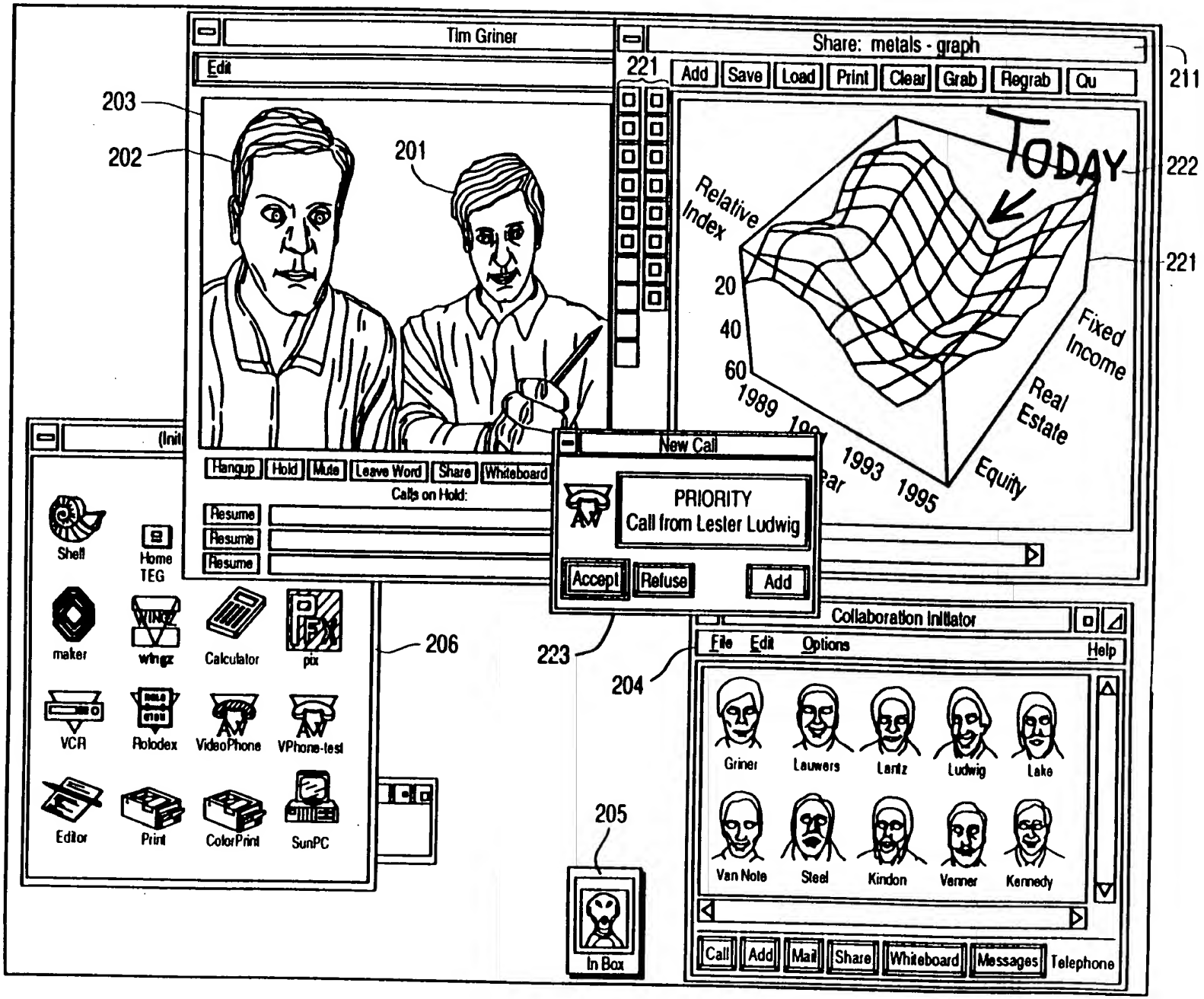
Add
Mail
Share
Whiteboard
Messages
Telephone
205
In Box

FIGURE 36


Tim Griner
Edit
Share: metals - graph
Add
Save
Load
Print
Clear
Grab
Regrab
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TODAY
Relative Index
20
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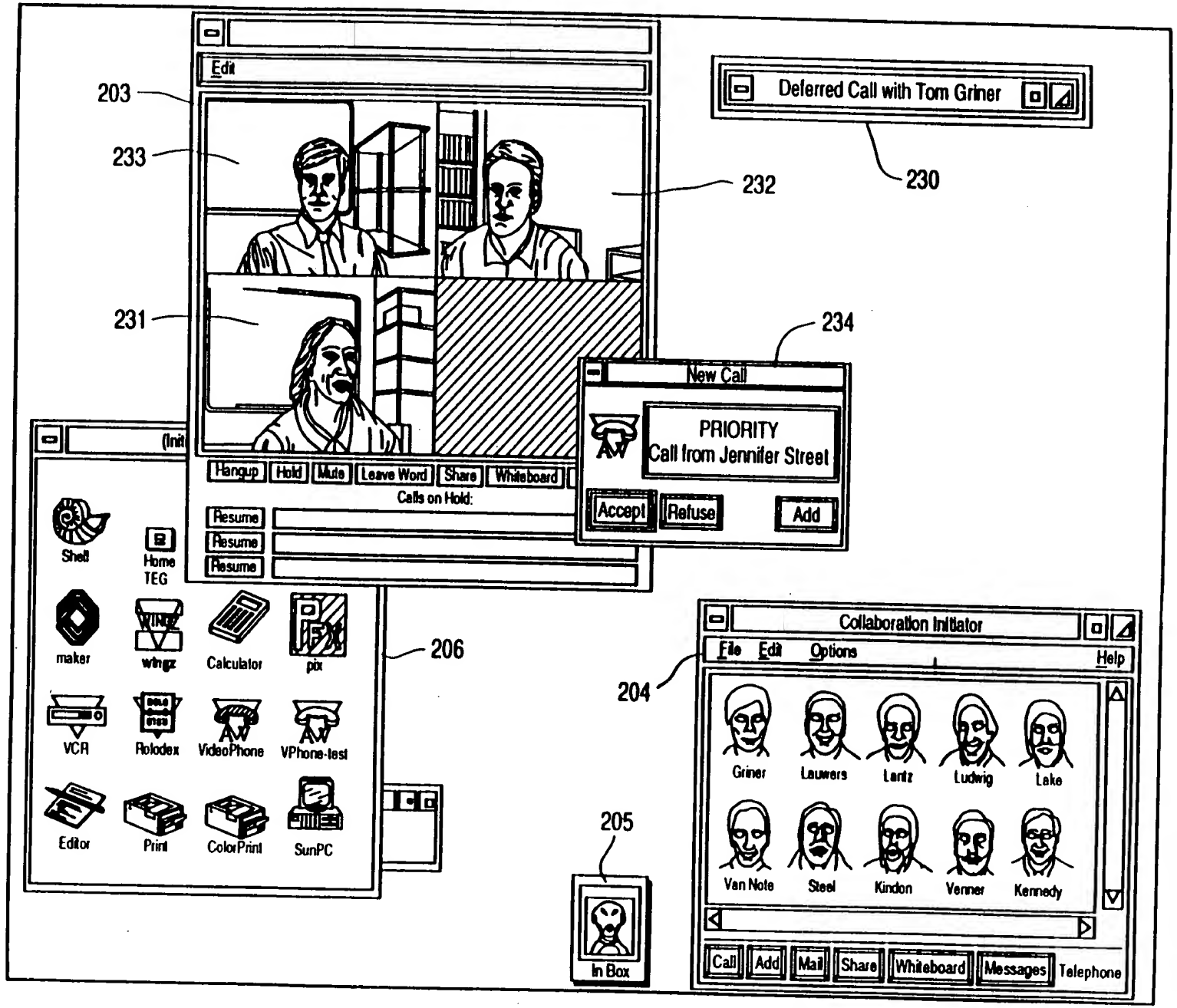
60
1989
1993
1995
Fixed Income
Real Estate
Equity
Hangup
Hold
Mute
Leave Word
Share
Whiteboard
Calls on Hold:
Resume
Resume
Resume
New Call
PRIORITY
Call from Lester Ludwig
Accept
Refuse
Add
Shell
Home TEG
maker
wtmgr
Calculator
pix
VCR
Rolodex
VideoPhone
VPhone-test
Editor
Print
ColorPrint
SunPC
In Box
Collaboration Initiator
File
Edit
Options
Help
Griner
Lauwers
Lantz
Ludwig
Lake
Van Note
Steel
Kindon
Venner
Kennedy
Call
Add
Mail
Share
Whiteboard
Messages
Telephone
201
202
203
204
205
206
211
221
222
223

FIGURE 37


Edit
203
233
232
231
230
Deferred Call with Tom Griner
234
New Call
PRIORITY
Call from Jennifer Street
Accept
Refuse
Add
Hangup
Hold
Mute
Leave Word
Share
Whiteboard
Calls on Hold:
Resume
Resume
Resume
Shell
Home
TEG
maker
wingz
Calculator
pix
VCR
Rolodex
VideoPhone
VPhone-test
Editor
Print
ColorPrint
SunPC
206
Collaboration Initiator
File
Edit
Options
Help
204
Griner
Lauwers
Lantz
Ludwig
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Van Note
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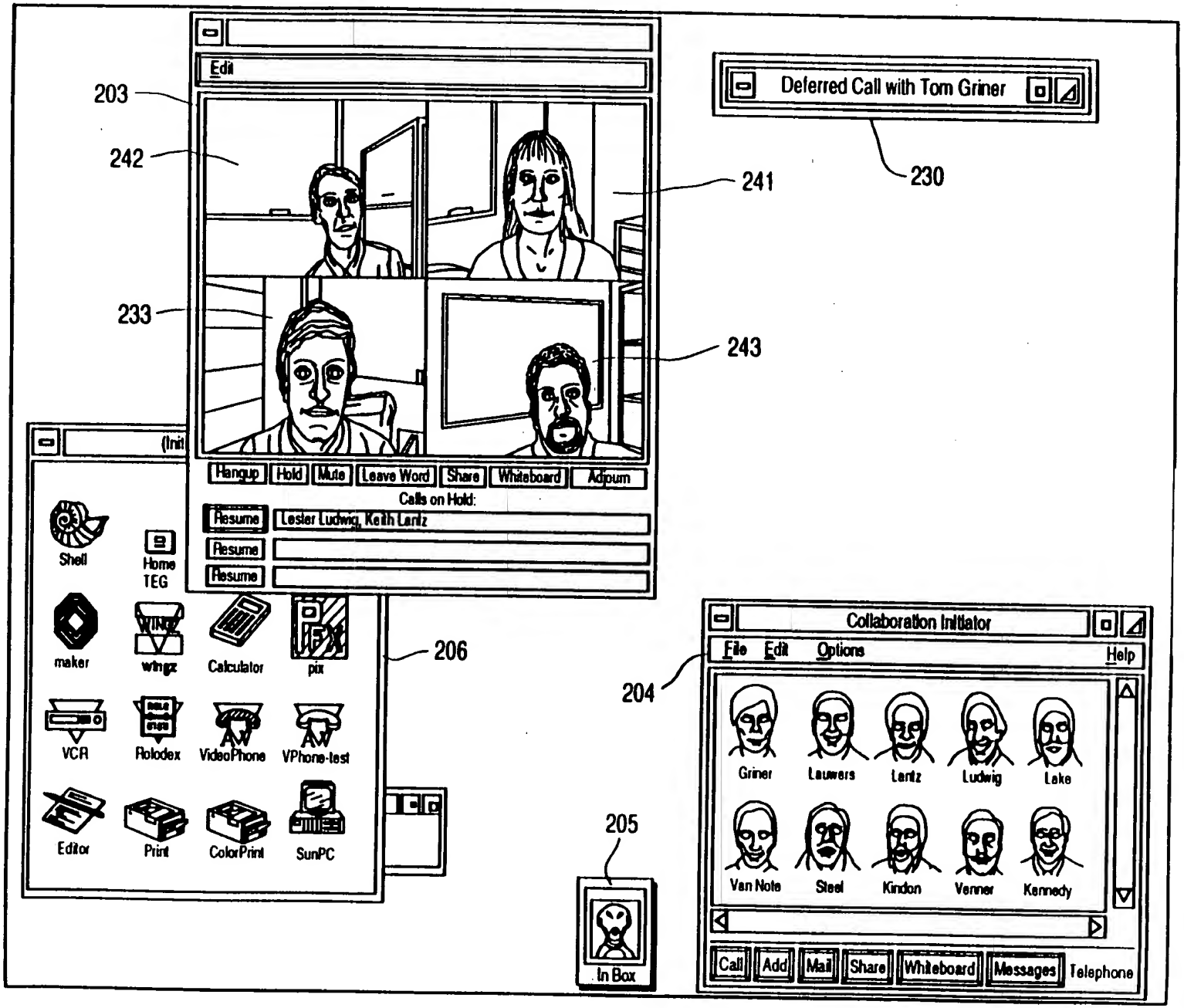
Venner
Kennedy
Call
Add
Mail
Share
Whiteboard
Messages
Telephone
205
In Box

FIGURE 38


Edit
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233
243
Deferred Call with Tom Griner
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Mute
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Whiteboard
Adjourn
Calls on Hold:
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Lester Ludwig, Keith Lantz
Resume
Resume
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Rolodex
VideoPhone
VPhone-test
Editor
Print
ColorPrint
SunPC
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Collaboration Initiator
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Griner
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Lantz
Ludwig
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Van Note
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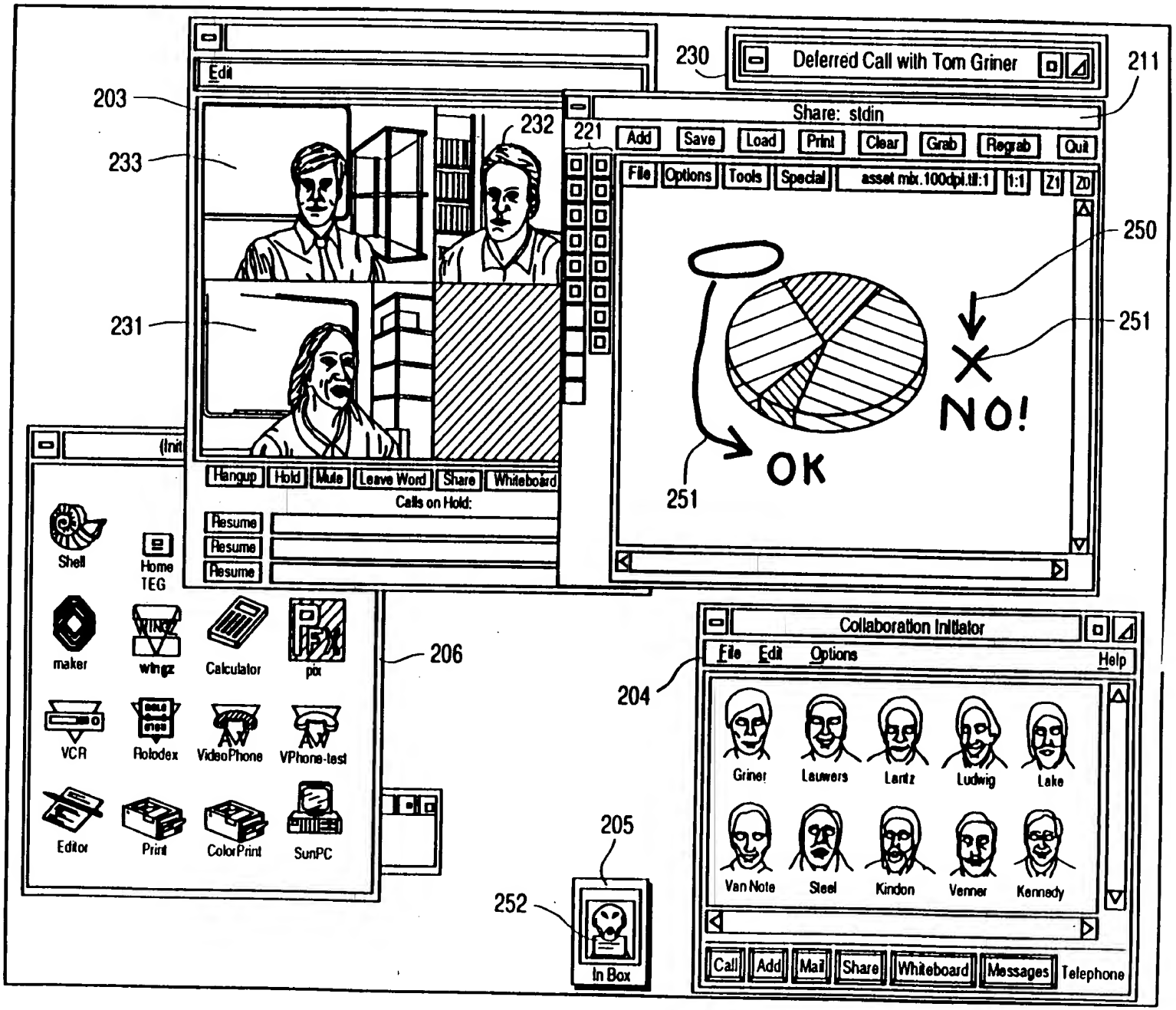
Kennedy
Call
Add
Mail
Share
Whiteboard
Messages
Telephone
205
In Box

FIGURE 39


Edit
Deferred Call with Tom Griner
Share: stdin
Add
Save
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Print
Clear
Grab
Regrab
Quit
File
Options
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Special
asset mix.100dpi.tif:1
1:1
Z1
Z0
NO!
OK
Hangup
Hold
Mute
Leave Word
Share
Whiteboard
Calls on Hold:
Resume
Resume
Resume
Shell
Home TEG
maker
wingz
Calculator
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Rolodex
VideoPhone
VPhone-test
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ColorPrint
SunPC
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Collaboration Initiator
File
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Options
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Lantz
Ludwig
Lake
Van Note
Steel
Kindon
Venner
Kennedy
Call
Add
Mail
Share
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251
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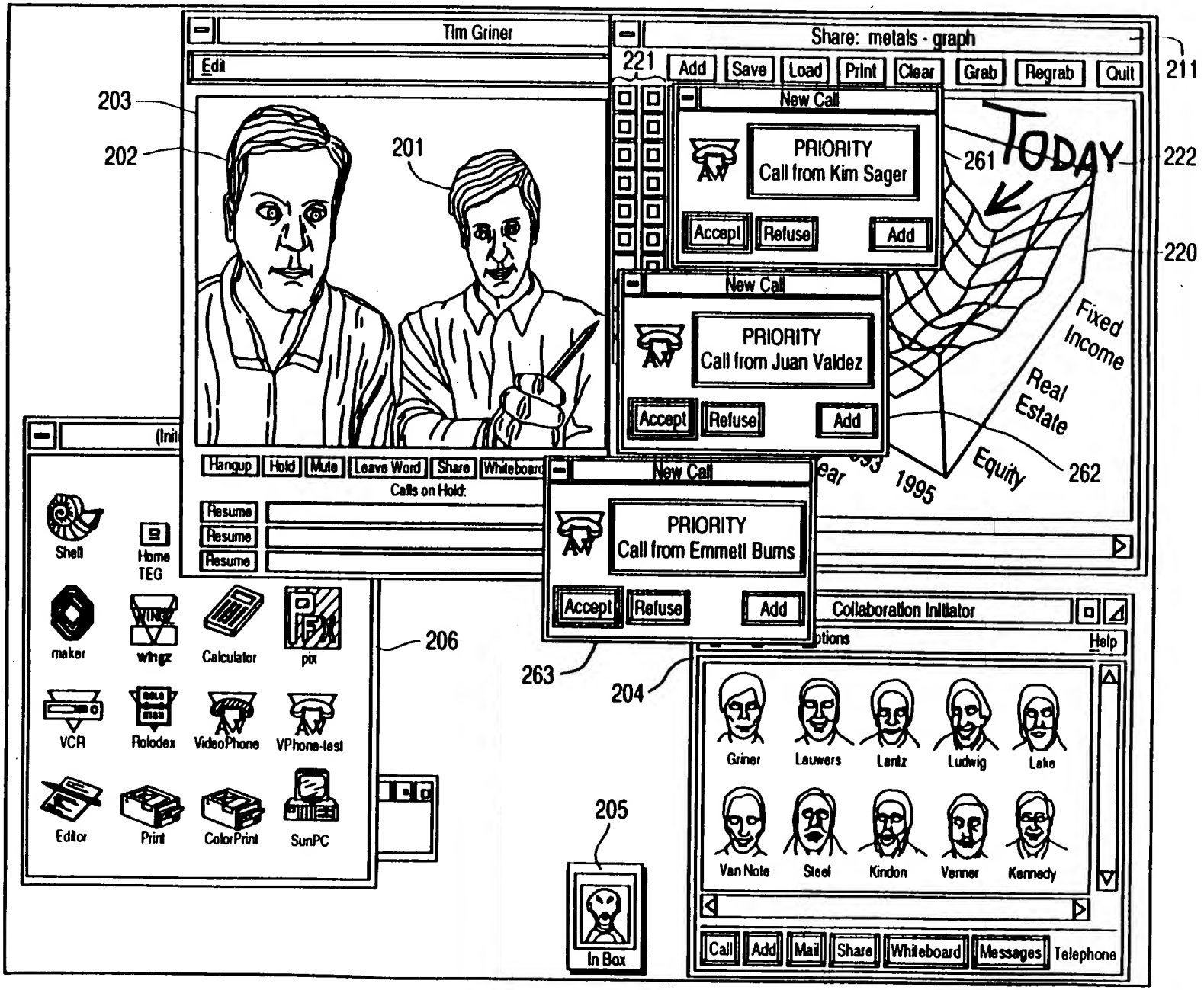
205
252

FIGURE 40


Tim Griner
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Share: metals - graph
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Grab
Regrab
Quit
211
221
203
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201
New Call
PRIORITY
Call from Kim Sager
Accept
Refuse
Add
261
TODAY
222
220
New Call
PRIORITY
Call from Juan Valdez
Accept
Refuse
Add
Fixed Income
Real Estate
Equity
262
1995
Hangup
Hold
Mute
Leave Word
Share
Whiteboard
Calls on Hold:
Resume
Resume
Resume
New Call
PRIORITY
Call from Emmett Burns
Accept
Refuse
Add
Shell
Home TEG
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Calculator
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VCR
Rolodex
VideoPhone
VPhone-test
Editor
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ColorPrint
SunPC
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263
204
Collaboration Initiator
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Griner
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Ludwig
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Kennedy
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Telephone
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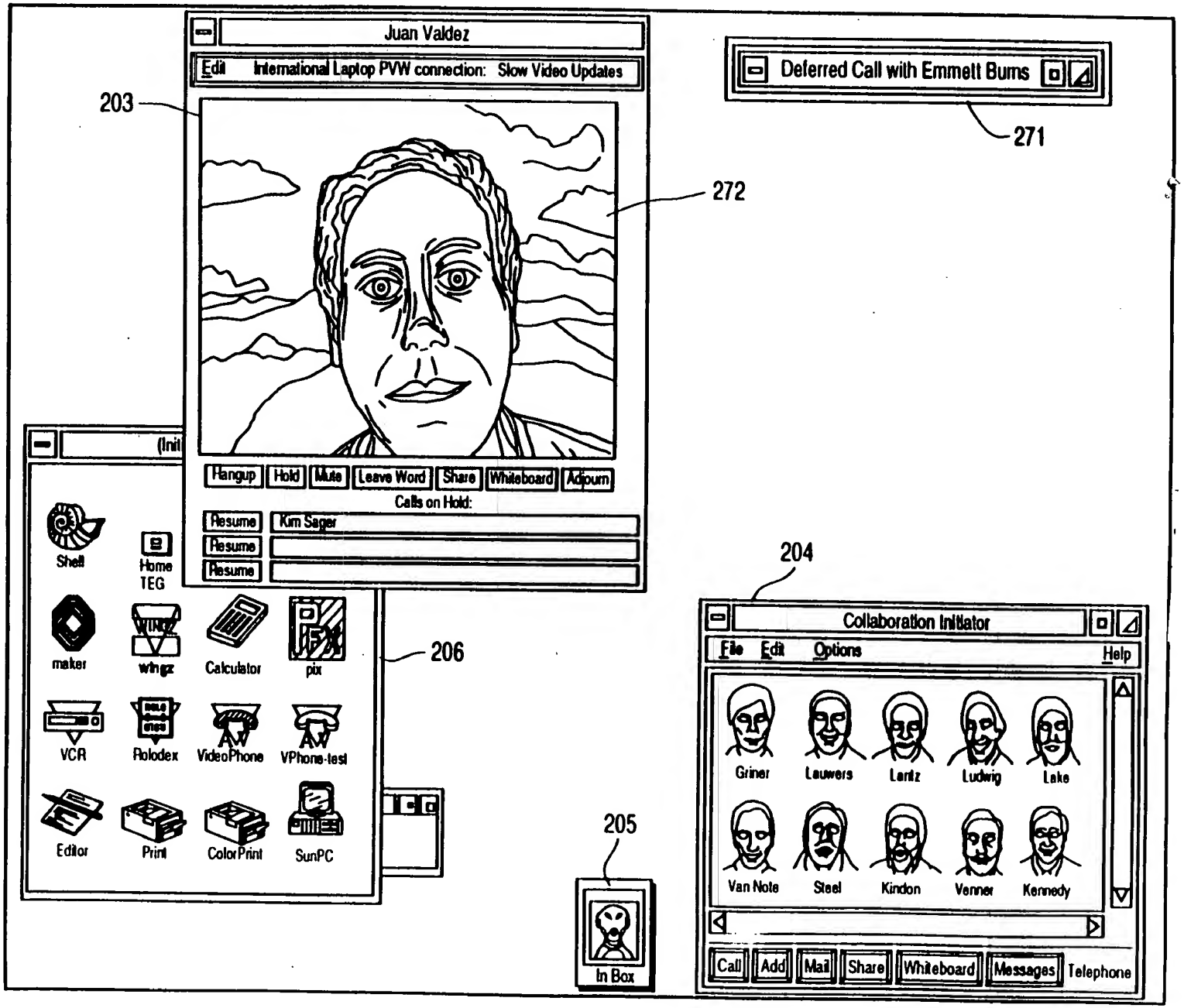
FIGURE 41


Juan Valdez
Edit International Laptop PVW connection: Slow Video Updates
203
272
Hangup
Hold
Mute
Leave Word
Share
Whiteboard
Adjourn
Calls on Hold:
Resume
Kim Sager
Resume
Resume
Deferred Call with Emmett Burns
271
204
Collaboration Initiator
File Edit Options Help
Griner
Lauwers
Lantz
Ludwig
Lake
Van Note
Steel
Kindon
Venner
Kennedy
Call
Add
Mail
Share
Whiteboard
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ColorPrint
SunPC
205
In Box

FIGURE 42